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NEW ZEALAND
OFFICIAL YEAR-BOOK,
1902.

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THE

NEW ZEALAND

OFFICIAL YEAR-BOOK

1902.

ELEVENTH YEAR OF ISSUE.

135025

PREPARED UNDER INSTRUCTIONS FROM THE

RIGHT HONOURABLE R. J. SEDDON, P.C.,

PREMIER.

BY

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PREFACE.

THE eleventh issue of the New Zealand Official Year-book is presented.

Part II. has been enlarged, and a large amount of information taken from the compiled results of the Census of 1901 is introduced. Section I. deals with manufactories and works, including the great primary industries of the colony, such as meat-freezing establishments and dairy factories.

Short descriptions of the South Pacific islands lying within the boundaries of annexation will be found in Part III.

The system of publishing portions of the book in pamphlets as "Advance Sheets" has been continued, for the purpose of supplying information early, in small quantities at a time.

E. J. VON DADELSZEN.

Registrar-General's Office,
Wellington, N.Z., 26th August, 1902.

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ERRATA.

On page 28.—Spain. *delete* "Acting Vice-Consul, Thomas Jamieson."
On page 33.—Last line but one, *for* "fourteen" *read* "five."
On page 121.—First paragraph, last line, *for* "1890." *read* "1900."

THE

NEW ZEALAND OFFICIAL YEAR-BOOK, 1902.

PART I.—INTRODUCTORY: OFFICIAL.

NEW ZEALAND.

THE Colony of New Zealand consists of three main islands, with several groups of smaller islands lying at some distance from the principal group. The main islands, known as the North, the Middle, and Stewart Islands, have a coast-line 4,330 miles in length—North Island, 2,200 miles; Middle Island, 2,000 miles; and Stewart Island, 130 miles. Other islands included within the colony are the Chatham, Auckland, Campbell, Antipodes, Bounty, and Kermadec Islands. The annexation of the Cook or Hervey Group and sundry other islands has recently necessitated an enlargement of the boundaries of the colony, which will be specially treated of further on.

New Zealand is mountainous in many parts, but has, nevertheless, large plains in both North and Middle Islands. In the North Island, which is highly volcanic, is situated the famous Thermal-Springs District, of which a special account will be given. The Middle Island is remarkable for its lofty mountains, with their magnificent glaciers, and for the deep sounds or fiords on the western coast.

New Zealand is firstly a pastoral, and secondly an agricultural country. Sown grasses are grown almost everywhere, the extent of land laid down being more than eleven millions of acres. The soil is admirably adapted for receiving these grasses, and, after the bush has been burnt off, is mostly sown over without previous ploughing. In the Middle Island a large area is covered with native grasses, all used for grazing purposes. The large extent of good grazing-land has made the colony a great wool and meat-producing country; and its agricultural capabilities are, speaking generally, very considerable. The abundance of water and the quantity of valuable timber are other natural advantages.

New Zealand is, besides, a mining country. Large deposits of coal are met with, chiefly on the west coast of the Middle Island. Gold, alluvial and in quartz, is found in both islands, the yield having been over fifty-nine millions sterling in value to the present time. Full statistical information on this subject is given further on, compiled up to the latest dates.

Discovery and Early Settlement.

The first authentic account of the discovery of New Zealand is that given by Abel Jansen Tasman, the Dutch navigator. He left Batavia on the 14th August, 1642, in the yacht "Heemskirk," accompanied by the "Zeehaen" (or "Sea-hen") fly-boat. After having visited Mauritius, and discovered Tasmania, named by him "Van Diemen's Land," in honour of Anthony van Diemen, Governor of the Dutch possessions in the East Indies, he steered eastward, and on the 13th December of the same year sighted the west coast of the Middle Island of New Zealand, described by him as "a high mountainous country, which is at present marked in the charts as New Zealand."

Tasman, under the belief that the land he saw belonged to a great polar continent, and was part of the country discovered some years before by Schouten and Le Maire, to which the name of Staaten Land had been given, gave the same name of Staaten Land to New Zealand; but within about three months afterwards Schouten's "Staaten Land" was found to be merely an inconsiderable island. Upon this discovery being announced, the country that Tasman had called Staaten Land received again the name of "New Zealand," by which it has ever since been known. Tasman sailed along the coast to a bay, where he anchored. To this he gave the name of Murderers (now Massacre) Bay, on account of an unprovoked attack on a boat's crew by the natives, and the massacre of four white men. Thence he steered along the west coast of the North Island, and gave the name of Cape Maria van Diemen to the north-western extremity thereof. After sighting the islands of the Three Kings he finally departed, not having set foot in the country.

There is no record of any visit to New Zealand after Tasman's departure until the time of Captain Cook, who, after leaving the Society Islands, sailed in search of a southern continent then believed to exist. He sighted land on the 6th October, 1769, at Young Nick's Head, and on the 8th of that month cast anchor in Poverty Bay. After having coasted round the North Island and the Middle and Stewart Islands—which last he mistook for part of the Middle Island—he took his departure from Cape Farewell on the 31st March, 1770, for Australia. He visited New Zealand again in 1773, in 1774, and in 1777.

M. de Surville, a French officer in command of the vessel "Saint Jean Baptiste," while on a voyage of discovery, sighted the north-east coast of New Zealand on the 12th December, 1769, and re-

mained for a short time. A visit was soon after paid by another French officer, M. Marion du Fresne, who arrived on the west coast of the North Island of New Zealand on the 24th March, 1772, but was, on the 12th June following, treacherously murdered at the Bay of Islands by the Natives.

In 1793 the "Dædalus," under the command of Lieutenant Hanson, was sent by the Government of New South Wales to New Zealand, and two chiefs were taken thence to Norfolk Island. There was after this an occasional intercourse between the islands of New Zealand and the English settlements in New South Wales.

In 1814 the first missionaries arrived in New Zealand—Messrs. Hall and Kendall—who had been sent as forerunners by Mr. Marsden, chaplain to the New South Wales Government. After a short stay they returned to New South Wales, and on the 19th November of that year again embarked in company with Mr. Marsden, who preached his first sermon in New Zealand on Christmas Day, 1814. He returned to Sydney on the 23rd March, 1815, leaving Messrs. Hall and Kendall, who formed the first mission station at Rangihoua, Bay of Islands, under the auspices of the Church Missionary Society. Six years later, in 1821, the work of evangelization was put on a more durable basis; but the first station of the Wesleyan mission, established by Mr. Leigh and his wife, at the valley of the Kaeo, Whangaroa, was not taken possession of until the 10th June, 1823.

Colonisation.

The first attempt at colonisation was made in 1825 by a company formed in London. An expedition was sent out under the command of Captain Herd, who bought two islands in the Hauraki Gulf and a strip of land at Hokianga. The attempt, however, was a failure, owing to the savage character of the inhabitants. In consequence of frequent visits of whaling-vessels to the Bay of Islands, a settlement grew up at Kororareka—now called Russell—and in 1833 Mr. Busby was appointed British Resident there. A number of Europeans—generally men of low character—gradually settled in different parts of the country, and married Native women.

In 1838 a colonisation company, known as the New Zealand Company, was formed to establish settlement on systematic principles. A preliminary expedition, under the command of Colonel William Wakefield, was despatched from England on the 12th May, 1839, and arrived in New Zealand in the following August. Having purchased land from the Natives, Colonel Wakefield selected the shore of Port Nicholson, in Cook Strait, as the site of the first settlement. On the 22nd January, 1840, the first body of immigrants arrived, and founded the town of Wellington. About the same time—namely, on the 29th January, 1840—Captain Hobson, R.N., arrived at the Bay of Islands, empowered, with the consent of the

Natives, to proclaim the sovereignty of Queen Victoria over the islands of New Zealand, and to assume the government thereof. A compact called "The Treaty of Waitangi," to which in less than six months five hundred and twelve names were affixed, was entered into, whereby all rights and powers of sovereignty were ceded to the Queen, all territorial rights being secured to the chiefs and their tribes. New Zealand was then constituted a dependency of the Colony of New South Wales, but on the 3rd May, 1841, was proclaimed a separate colony. The seat of Government had been previously established at Waitemata (Auckland), round which a settlement was formed.

The New Zealand Company having decided to form another settlement, to which the name of "Nelson" was to be given, despatched a preliminary expedition from England in April, 1841, for the purpose of selecting a site. The spot chosen was the head of Blind Bay, where a settlement was established. About the same time a number of pioneers arrived in Taranaki, despatched thither by the New Plymouth Company, a colonising society which had been formed in England, and had bought 50,000 acres of land from the New Zealand Company.

The next important event in the progress of colonisation was the arrival at Port Chalmers, on the 23rd March, 1848, of the first of two emigrant ships sent out by the Otago Association for the foundation of a settlement by persons belonging to or in sympathy with the Free Church of Scotland.

In 1849 the "Canterbury Association for founding a Settlement in New Zealand" was incorporated. On the 16th December, 1850, the first emigrant ship despatched by the association arrived at Port Cooper, and the work of opening up the adjoining country was set about in a systematic fashion, the intention of the promoters being to establish a settlement complete in itself, and composed entirely of members of the then United Church of England and Ireland.

The Maoris.

Prior to the colonisation of New Zealand by Europeans, the earliest navigators and explorers found a race of people already inhabiting both islands. Papers written in 1874 by Mr. (afterwards Sir) William Fox, and Sir Donald McLean, then Native Minister, state that at what time the discovery of these islands was made by the Maoris, or from what place they came, are matters of tradition only, and that much has been lost in the obscurity enveloping the history of a people without letters. Nor is there anything on record respecting the origin of the Maori people themselves, beyond the general tradition of the Polynesian race, which seems to show a series of successive migrations from west to east, probably by way of Malaysia to the Pacific. Little more can now be gathered from their traditions than that they were immigrants, and that they probably found inhabitants on the east coast of the North Island belonging to the same race as themselves—the descend-

ants of a prior migration, whose history is lost. The tradition runs that, generations ago, the Maoris dwelt in a country named Hawaiki, and that one of their chiefs, after a long voyage, reached the northern island of New Zealand. Returning to his home with a flattering description of the country he had discovered, this chief, it is said, persuaded a number of his kinsfolk and friends, who were much harassed by war, to set out with a fleet of double canoes for the new land. The names of most of the canoes are still remembered, and each tribe agrees in its account of the doings of the people of the principal canoes after their arrival in New Zealand; and from these traditional accounts the descent of the numerous tribes has been traced. Calculations, based on the genealogical staves kept by the *tohungas*, or priests, and on the well-authenticated traditions of the people, indicate that about twenty-one generations have passed since the migration, which may therefore be assumed to have taken place about five hundred and twenty-five years ago. The position of the legendary Hawaiki is unknown, but many places in the South Seas have been thus named in memory of the motherland. The Maoris speak a very pure dialect of the Polynesian language, the common tongue, with more or less variation, in all the Eastern Pacific Islands. When Captain Cook first visited New Zealand he availed himself of the services of a native from Tahiti, whose speech was easily understood by the Maoris. In this way much information respecting the early history of the country and its inhabitants was obtained which could not have otherwise been had.

For results of recent researches as to probable origin and present numbers of the Maoris, see Year-book for 1901.

Boundaries and Area.

The Proclamation of Captain Hobson on the 30th January, 1840, gave as the boundaries of the colony the following degrees of latitude and longitude: On the north, 34° 30′ S. lat.; on the south, 47° 10′ S. lat.; on the east, 179° 0′ E. long.; on the west, 166° 5′ E. long. These limits excluded small portions of the extreme north of the North Island and of the extreme south of Stewart Island.

In April, 1842, by Royal Letters Patent, and again by the Imperial Act 26 and 27 Vict., c. 23 (1863), the boundaries of the colony were altered so as to extend from 33° to 53° of south latitude and from 162° of east longitude to 173° of west longitude. By Proclamation bearing date the 21st July, 1887, the Kermadec Islands, lying between the 29th and 32nd degrees of south latitude and the 177th and 180th degrees of west longitude, were declared to be annexed to and to become part of the Colony of New Zealand.

By Proclamation bearing date the 10th June, 1901, the Cook Group of islands, and all the other islands and territories situate within the boundary-lines mentioned in the following Schedule, were included in the Colony of New Zealand:—

A line commencing at a point at the intersection of the twenty-third degree of south latitude and the one-hundred-and-fifty-sixth degree of longitude west of Greenwich, and proceeding due north to the point of intersection of the eighth degree of south latitude and the one-hundred-and-fifty-sixth degree of longitude west of Greenwich; thence due west to the point of intersection of the eighth degree of south latitude and the one-hundred-and-sixty-seventh degree of longitude west of Greenwich; thence due south to the point of intersection of the seventeenth degree of south latitude and the one-hundred-and-sixty-seventh degree of longitude west of Greenwich; thence due west to the point of intersection of the seventeenth degree of south latitude and the one-hundred-and-seventieth degree of longitude west of Greenwich; thence due south to the point of intersection of the twenty-third degree of south latitude and the one-hundred-and-seventieth degree of longitude west of Greenwich; and thence due east to the point of intersection of the twenty-third degree of south latitude and the one-hundred-and-fifty-sixth degree of longitude west of Greenwich.

The following now constitute the Colony of New Zealand:—

1. The island commonly known as the North Island, with its adjacent islets, having an aggregate area of 44,468 square miles, or 28,459,520 acres.

2. The island known as the Middle Island, with adjacent islets, having an aggregate area of 58,525 square miles, or 37,456,000 acres.

3. Stewart Island, and adjacent islets, having an area of 665 square miles, or 425,390 acres.

4. The Chatham Islands, situate 536 miles eastward of Lyttelton in the Middle Island, with an area of 375 square miles, or 239,920 acres.

5. The Auckland Islands, about 200 miles south of Stewart Island, extending about 30 miles from north to south, and nearly 15 from east to west, the area being 210,650 acres.

6. The Campbell Islands, in latitude 52° 33′ south, and longitude 169° 8′ west, about 30 miles in circumference, with an area of 45,440 acres.

7. The Antipodes Islands, about 458 miles in a south-easterly direction from Port Chalmers, in the Middle Island. These are detached rocky islands, and extend over a distance of between 4 and 5 miles from north to south. Area, 12,960 acres.

8. The Bounty Islands, a small group of islets, thirteen in number, lying north of the Antipodes Islands, and about 415 miles in an east-south-easterly direction from Port Chalmers. Area, 3,300 acres.

9. The Kermadec Islands, a group lying about 614 miles to the north-east of Russell, in the Bay of Islands. Raoul or Sunday Island, the largest of these, is about 20 miles in circuit. The next in size is Macaulay Island, about 3 miles round. Area of the group, 8,208 acres.

10. Islands forming the Cook Group:—

Rarotonga.—Distance from Auckland, 1,638 miles; circumference, 20 miles; height, 2,920 ft.

Mangaia.—Distance from Rarotonga, 116 miles; circumference, 30 miles; height, 656 ft.

Atiu.—Distance from Rarotonga, 116 miles: circumference, 20 miles; height, 374 ft.

Aitutaki. — Distance from Rarotonga, 140 miles; circumference, 12 miles: height, 366 ft.
Mauke.—Distance from Rarotonga, 150 miles; circumference, 6 miles height, about 60 ft.
Mitiaro.—Distance from Rarotonga, 140 miles; circumference, 5 miles; height, about 50 ft; also,
Takutea.—Distant from Rarotonga, 125 miles.
The Herveys (*Manuae* and *Aoutu*).—Distant from Rarotonga, 120 miles.

Total area of above group; 150 square miles.

11. Islands outside Cook Group:—

Niue.—Distance from Rarotonga, 580 miles; circumference, 40 miles; height, 200 ft.; area, about 100 square miles.
Palmerston.—Distance from Rarotonga, 273 miles; an atoll, 4 miles by 2 miles.
Penrhyn, or *Tongareva.*—Distance 735 miles from Rarotonga; an atoll, 12 miles by 7 miles.
Humphrey, or *Manahiki.*—Distance from Rarotonga, 650 miles; an atoll, 6 miles by 5 miles.
Rierson, or *Rakaanga.*—Distance from Rarotonga, 670 miles; an atoll, 3 miles by 3 miles.
Danger, or *Pukapuka.*—Distance from Rarotonga, 700 miles; an atoll, 3 miles by 3 miles.
Suwarrow.—Distance from Rarotonga, 530 miles; an atoll.

Total area of outside islands, 130 square miles.

Total area of New Zealand extended, 280 square miles.

The total area of the colony is thus about 104,751 square miles, of which the aggregate area of the outlying groups of islands that are practically useless for settlement amounts to about 498 square miles.

Area of the Commonwealth States of Australia.

The areas of the several Australian States, as given by different authorities, vary considerably. The total area of the Australian Continent is given as 2,944,628 square miles, according to a computation made by the late Surveyor-General of Victoria, Mr. J. A. Skene, from a map of Continental Australia compiled and engraved under his direction; but the following areas are taken from the latest official records of each colony:—

	Square Miles.
Queensland	668,497
New South Wales	310,700
Victoria	87,884
South Australia	903,690
Western Australia	975,920
Total, Continent of Australia	2,946,691
Tasmania	26,215
Total, Commonwealth of Australia ..	2,972,906

The size of these States (with New Zealand) may be better realised by comparison of their areas with those of European countries. The areas of the following countries—Austria-Hungary, Germany,

France, Belgium, Holland, Denmark, Sweden and Norway, Portugal, Spain, Italy (including Sardinia and Sicily), Switzerland, Greece, Roumania, Bulgaria, Servia, Eastern Roumelia, and Turkey in Europe—containing on the whole rather less than 1,600,000 square miles, amount to little more than half the extent of the Australian Continent. If the area of Russia in Europe be added to those of the other countries the total would be about one-seventh larger than the Australian Continent, and about one-twelfth larger than the Australian States, with New Zealand.

Area of the Colony of New Zealand.

The area of the Colony of New Zealand is about one-seventh less than the area of Great Britain and Ireland, the Middle Island of New Zealand being a little larger than the combined areas of England and Wales.

United Kingdom.	Area in Square Miles.
England and Wales	58,311
Scotland	30,463
Ireland	32,531
Total	121,305

New Zealand.	Area in Square Miles.
North Island	44,468
Middle Island	58,525
Stewart Island	665
Chatham Islands	375
Other islands	718
Total	104,751

Physical Features of the North Island.

The North Island extends over a little more than seven degrees of latitude—a distance in a direct line from north to south of 430 geographical or 498 statute miles; but, as the northern portion of the colony, which covers more than three degrees of latitude, trends to the westward, the distance in a straight line from the North Cape to Cape Palliser, the extreme northerly and southerly points of the island, is about 515 statute miles.

This island is, as a whole, hilly, and, in parts, mountainous in character, but there are large areas of plain or comparatively level country that are, or by clearing may be made, available for agricultural purposes. Of these, the principal are the plains in Hawke's Bay on the East Coast, the Wairarapa Plain in the Wellington District, and a strip of country along the West Coast, about 250 miles in length, extending from a point about thirty miles from the City of Wellington to a little north of New Plymouth. The largest plain in the North Island, Kaingaroa, extends from the shore of Lake Taupo in a north-north-easterly direction to the sea-coast in

the Bay of Plenty; but a great part of it is covered with pumice-sand, and is unfitted for tillage or pasture. There are several smaller plains and numerous valleys suitable for agriculture. The level or undulating country in this island fit, or capable of being made fit, for agriculture has been roughly estimated at 13,000,000 acres. This includes lands now covered with standing forest, and swamps that can be drained; also large areas of clay-marl and pumice-covered land. The clay-marl in its natural state is cold and uninviting to the farmer, but under proper drainage and cultivation it can be brought to a high state of productiveness. This kind of land is generally neglected at the present time, as settlers prefer soils more rapidly remunerative and less costly to work. The larger portion of the North Island was originally covered with forest. Although the area of bush-land is still very great, yet year by year the amount is being reduced, chiefly to meet the requirements of settlement, the trees being cut down and burnt, and grass-seed sown on the ashes to create pasture. Hilly as the country is, yet from the nature of the climate it is especially suited for the growth of English grasses, which will flourish wherever there is any soil, however steep the land may be; once laid down in grass very little of the land is too poor to supply food for cattle and sheep. The area of land in the North Island deemed purely pastoral or capable of being made so, while too steep for agricultural purposes, is estimated at 14,200,000 acres. In the centre of the island is a lake, about twenty miles across either way, called Taupo. A large area adjacent to the lake is at present worthless pumice-country. The Waikato River, the largest in the North Island, flows out of the north-eastern corner of this lake, and runs thence north-westward until it enters the ocean a little distance south of the Manukau Harbour. This river is navigable for small steamers for about a hundred miles from its mouth. The Maori King-country, occupied by Natives who for several years isolated themselves from Europeans, lies between Lake Taupo and the western coast. The River Thames, or Waihou, having its sources north of Lake Taupo, flows northward into the Firth of Thames. It is navigable for about fifty miles, but only for small steamers. The other navigable rivers in this island are the Wairoa (Kaipara), the Wanganui, and the Manawatu, the two last of which flow towards the south-west into Cook Strait.

The mountains in the North Island are estimated to occupy about one-tenth of the surface, and do not exceed 4,000ft. in height, with the exception of a few volcanic mountains that are more lofty. Of these, the three following are the most important;—

1. The Tongariro Mountain, situated to the southward of Lake Taupo. It consists of a group of distinct volcanic cones, the lava-streams from which have so overlapped in their descent as to form one compact mountain-mass at the base. The highest of these cones is called Ngauruhoe, and attains an elevation of 7,515ft. The craters of Ngauruhoe, the Red Crater (6,140ft.), and Te

Mari (4,990ft.) are the three vents from which the latest discharges of lava have taken place, the most recent having occurred in 1868. These craters are still active, steam and vapour issuing from them with considerable force and noise, the vapours, charged with pungent gases and acids, making it dangerous to approach too near the crater-lips. ...

2. Ruapehu. This mountain lies to the south of Ngauruhoe and Tongariro. It is a volcanic cone in the solfatara stage, and reaches the height of 9,008ft., being in part considerably above the line of perpetual snow. The most remarkable feature of this mountain is the crater-lake on its summit, which is subject to slight and intermittent eruptions, giving rise to vast quantities of steam. Recently —in March, 1895—such an eruption took place, forming a few hot springs on the margin of the lake, and increasing the heat in the lake itself. This lake lies at the bottom of a funnel-shaped crater, the steep sides of which are mantled with ice and snow. The water occupies a circular basin about 500ft. in diameter, some 300ft. below the enclosing peaks, and is quite inaccessible except by the use of ropes. This lake, and the three craters previously mentioned on Tongariro, are all in one straight line, which, if produced, would pass through the boiling springs at Tokaanu on the southern margin of Lake Taupo, the volcanic country north-east of that lake, and White Island, an active volcano in the Bay of Plenty, situated about twenty-seven miles from the mainland.

3. Mount Egmont. This is an extinct volcanic cone, rising to a height of 8,260ft. The upper part is always covered with snow. This mountain is situated close to New Plymouth, and is surrounded by one of the most fertile districts in New Zealand. Rising from the plains in solitary grandeur, it is an object of extreme beauty, the cone being one of the most perfect in the world.

It is estimated that the area of mountain-tops and barren country at too high an altitude for sheep, and therefore worthless for pastoral purposes, amounts, in the North Island, to 300,000 acres.

Without a doubt the hot springs form the most remarkable feature of the North Island. They are found over a large area, extending from Tongariro, south of Lake Taupo, to Ohaeawai, in the extreme north—a distance of some 300 miles; but the principal seat of hydrothermal action appears to be in the neighbourhood of Lake Rotorua, about forty miles north-north-east from Lake Taupo. By the destruction of the famed Pink and White Terraces and of Lake Rotomahana during the eruption of Mount Tarawera on the 10th June, 1886, the neighbourhood has been deprived of attractions unique in character and of unrivalled beauty; but the natural features of the country—the numerous lakes, geysers, and hot springs, some of which possess remarkable curative properties in certain complaints—are still very attractive to tourists and invalids. The world-wide importance of conserving this region as a sanatorium for all time has been recognised by the Government, and it is now dedicated by Act of Parliament to that purpose.

Notwithstanding the length of coast-line, good harbours in the North Island are not numerous. Those on the west coast north of New Plymouth are bar-harbours, unsuitable for large vessels. The principal harbours are the Waitemata Harbour, on which Auckland is situated—this is rather a deep estuary than a harbour; several excellent havens in the northern peninsula; and Port Nicholson, on the borders of which Wellington is situated. This is a land-locked harbour, about six miles across, having a comparatively narrow but deep entrance from the ocean. The water is deep nearly throughout.

The Cape Colville Peninsula is rich in gold-bearing quartz.

Cook Strait.

Cook Strait separates the North and Middle Islands. It is some sixteen miles across at its narrowest part, but in the widest about ninety. The strait is invaluable for the purpose of traffic between different parts of the colony.

Physical Features of the Middle Island.

The extreme length of the Middle Island, from Jackson's Head, in Cook Strait, to Puysegur Point, at the extreme south-west, is about 525 statute miles; the greatest distance across at any point is in Otago (the southernmost) District, about 180 miles.

The Middle Island is intersected along almost its entire length by a range of mountains known as the Southern Alps. Some of the summits reach a height of from 10,000ft. to 12,000ft., Mount Cook, the highest peak, rising to 12,349ft.

In the south, in the neighbourhood of the Sounds and Lake Te Anau, there are many magnificent peaks, which, though not of great height, are, owing to their latitude, nearly all crowned with perpetual ice and snow. Further north the mountains increase in height—Mount Earnslaw, at Lake Wakatipu; and Mount Aspiring, which has been aptly termed the New Zealand Matterhorn, 9,949 ft. in height, at Lake Wanaka. Northward of this again are Mount Cook (or Aorangi), Mount Sefton, and other magnificent peaks.

For beauty and grandeur of scenery the Southern Alps of New Zealand may worthily compare with, while in point of variety they are said actually to surpass, the Alps of Switzerland. In New Zealand few of the mountains have been scaled; many of the peaks and most of the glaciers are as yet unnamed; and there is still, in parts of the Middle Island, a fine field for exploration and discovery—geographical, geological, and botanical. The wonders of the Southern Alps are only beginning to be known; but the more they are known the more they are appreciated. The snow-line in New Zealand being so much lower than in Switzerland, the scenery, though the mountains are not quite so high, is of surpassing grandeur.

There are extensive glaciers on both sides of the range, those on the west being of exceptional beauty, as, from the greater abrupt-

ness of the mountain-slopes on that side, they descend to within about 700ft. of the sea-level, and into the midst of the evergreen forest. The largest glaciers on either side of the range are easily accessible.

The following gives the sizes of some of the glaciers on the eastern slope:—

Name.	Area of Glacier.	Length of Glacier.	Greatest Width.	Average Width.
	Acres.	Miles ch.	Miles ch.	Miles ch.
Tasman	13,664	18 0	2 14	1 15
Murchison	5,800	10 70	1 5	0 66
Godley	5,312	8 0	1 55	1 3
Mueller	3,200	8 0	0 61	0 50
Hooker	2,416	7 25	0 54	0 41

The Alletsch Glacier in Switzerland, according to Ball, in the "Alpine Guide," has an average width of one mile. It is in length and width inferior to the Tasman Glacier.

Numerous sounds or fiords penetrate the south-western coast. They are long, narrow, and deep (the depth of water at the upper part of Milford Sound is 1,270ft., although at the entrance only 130ft.), surrounded by giant mountains clothed with foliage to the snow-line, with waterfalls, glaciers, and snowfields at every turn. Some of the mountains rise almost precipitously from the water's edge to 5,000ft. and 6,000ft. above the sea. Near Milford, the finest of these sounds, is the great Sutherland Waterfall, 1,904ft. high.

The general surface of the northern portion of the Middle Island, comprising the Provincial Districts of Nelson and Marlborough, is mountainous, but the greater part is suitable for grazing purposes. There are some fine valleys and small plains suitable for agriculture, of which the Wairau Valley or Plain is the largest. Deep sounds, extending for many miles, break the coast-line abutting on Cook Strait. The City of Nelson is situated at the head of Blind Bay, which has a depth inwards from Cook Strait of about forty statute miles.

The Provincial District of Canterbury lies to the south of the Marlborough District, and on the eastern side of the island. Towards the north the land is undulating; then there is a stretch of almost perfectly level country extending towards the south-west 160 miles, after which, on the south, the country is undulating as far as the borders of the Otago District. On the east a block of hill-country rises abruptly from the plain and extends for some miles seaward. This is Banks Peninsula, containing several good harbours, the principal being Port Cooper, on the north, on which is situated Lyttelton, the chief port of the district: the harbour of Akaroa, one of the finest in the colony, is on the southern coast of this peninsula.

The District of Otago is, on the whole, mountainous, but has many fine plains and valleys suitable for tillage. The mountains, except towards the west coast, are generally destitute of timber, and suitable for grazing sheep. There are goldfields of considerable extent in the interior of this district. The inland lakes are also very remarkable features. Lake Wakatipu extends over fifty-four miles in length, but its greatest width is not more than four miles, and its area only 114 square miles. It is 1,070ft. above sea-level, and has a depth varying from 1,170ft. to 1,296ft. Te Anau Lake is somewhat larger, having an area of 132 square miles. These lakes are bounded on the west by broken, mountainous, and wooded country, extending to the ocean.

The chief harbours in Otago are Port Chalmers, at the head of which Dunedin is situated, and the Bluff Harbour, at the extreme south.

The District of Westland, extending along the west coast of the Middle Island, abreast of Canterbury, is more or less auriferous throughout. The western slopes of the central range of mountains are clothed with forest-trees to the snow-line; but on the eastern side timber is scarce, natural grasses covering the ground.

The rivers in the Middle Island are for the most part mountain torrents, fed by glaciers in the principal mountain ranges. When the snow melts they rise in flood, forming, where not confined by rocky walls, beds of considerable width, generally covered by enormous deposits of shingle. The largest river in the colony as regards volume of water is the Clutha. It is 154 miles in length, but is only navigable for boats or small river-steamers for about thirty miles. The Rivers Buller, Grey, and Hokitika, on the West Coast, are navigable for a short distance from their mouths. They form the only ports in the Westland District. In their unimproved state they admitted, owing to the bars at their mouths, none but vessels of small draught; but, in consequence of the importance of the Grey and Buller Rivers as the sole ports available for the coal-export trade, large harbour-works have been undertaken, resulting in the deepening of the beds of these rivers, and giving a depth of from 18ft. to 26ft. of water on the bar.

The area of level or undulating land in the Middle Island available for agriculture is estimated at about 15,000,000 acres. About 13,000,000 are suitable for pastoral purposes only, or may become so when cleared of forest and sown with grass-seed. The area of barren land and mountain-tops is estimated at about 9,000,000 acres.

Stewart Island.

Foveaux Strait separates the Middle from Stewart Island. This last island has an area of only 425,390 acres.

Stewart Island is a great tourist resort during the summer months, and is easily reached by steamer from the Bluff, distant about 25 miles.

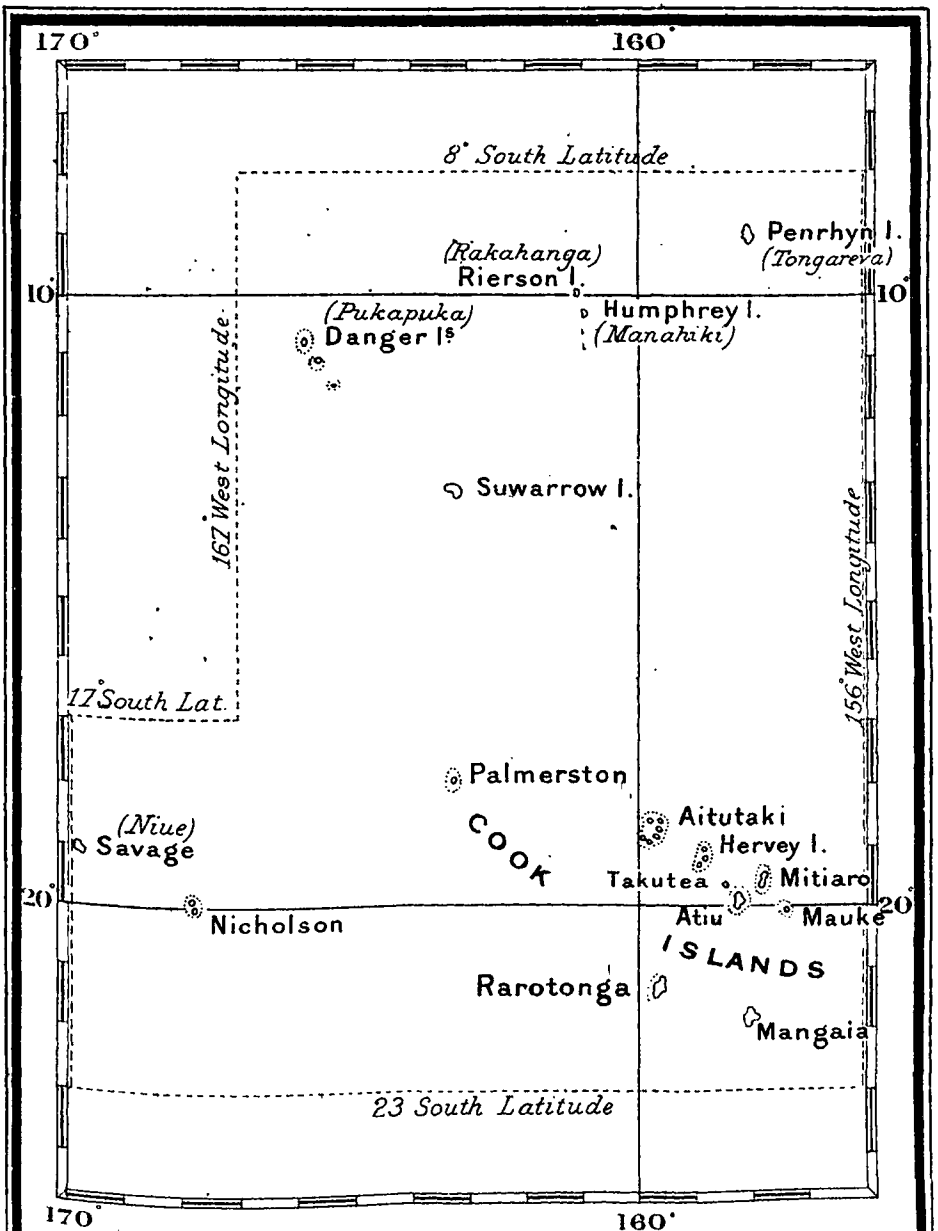
The principal peak is Mount Anglem, 3,200 ft. above sea-level, which has an extinct crater at its summit. Most of the island is rugged and forest-clad; the climate is mild, frost being seldom experienced; and the soil, when cleared of bush, is fertile.

The chief attractions are the numerous bays and fiords. Paterson Inlet is a magnificent sheet of water, about ten miles by four miles, situated close to Half-moon Bay, the principal port, where over two hundred people live. Horse-shoe Bay and Port William are within easy reach of Half-moon Bay. Port Pegasus, a land-locked sheet of water about eight miles by a mile and a half, is a very fine harbour. At "The Neck" (Paterson Inlet) there is a Native settlement of over a hundred Maoris and half-castes. The bush is generally very dense, with thick undergrowth. Rata, black-pine, white-pine, miro, and totara are the principal timber trees. Fish are to be had in great abundance and variety; oysters form an important industry. Wild pigeons, ducks, and mutton-birds are plentiful.

The Outlying Islands.

The outlying group of the Chatham Islands, 480 statute miles east-south-east from Wellington, and 536 miles eastward of Lyttelton, consists of two principal islands and several unimportant islets. The largest island contains about 222,490 acres, of which an irregular-shaped lake or lagoon absorbs 45,960 acres. About one quarter of the surface of the land is covered with forest, the rest with fern or grass. The hills nowhere rise to a great height. Pitt Island is the next in size; the area is 15,330 acres. The greater portion of both islands is used for grazing sheep.

The Kermadec Group of islands, four in number, is situated between 29° 10′ and 31° 30′ south latitude, and between 177° 45′ and 179° west longitude. They are named Raoul or Sunday Island, Macaulay Island, Curtis Islands, and L'Espérance or French Rock. The principal island, Sunday, is 600 miles distant from Auckland. The islands are volcanic, and in two of them signs of activity are still to be seen. The rainfall is plentiful, but not excessive. The climate is mild and equable, and slightly warmer than the north of New Zealand. The following are the areas of the islands and islets of the group: Sunday Island, 7,200 acres; Herald group of islets, 85 acres; Macaulay Island, 764 acres; Curtis Islands, 128 acres and 19 acres; L'Espérance, 12 acres: total, 8,208 acres. Sunday Island is twenty miles in circumference, roughly triangular in shape, and at the highest point 1,723ft. above the sea-level. It is rugged and broken over a very large extent of its surface, and, except in a few places, covered with forest. The soil everywhere on the island is very rich, being formed by the decomposition of a dark-coloured pumiceous tuff and a black andesitic lava, with which is closely mixed a fine vegetable mould. The great luxuriance and richness of the vegetation bear witness to the excellence of the soil, which is everywhere—except where destroyed by eruptions,



COOK AND OTHER PACIFIC ISLANDS,

Annexed to New Zealand in June, 1901.

Boundaries shown thus, ------

and on the steep cliffs—the same rich loam. Want of water is one of the drawbacks. Three of the four lakes on the island are fresh, but so difficult of approach as to be practically useless.

The AUCKLAND ISLANDS are about 290 miles south of Bluff Harbour, their position being given on the Admiralty chart as latitude 50° 31′ 29″ S., and longitude 166° 19′ 12″ E. They have several good harbours. Port Ross, at the north end of the principal island, was described by the eminent French commander, D'Urville, as one of the best harbours of refuge in the known world. At the southern end of the island there is a through passage extending from the east to the west coast. It has been variously named Adams' Strait and Carnley Harbour, and forms a splendid sheet of water. The largest of the islands is about 27 miles long by about 15 miles broad, and is very mountainous, the highest part being about 2,000ft. above the sea. The west coast is bold and precipitous, but the east coast has several inlets. The wood on the island is, owing to the strong prevailing wind, scrubby in character. The New Zealand Government maintains at this island a dépôt of provisions and clothing for the use of shipwrecked mariners.

The COOK ISLANDS, with others recently annexed, are as under:—

RAROTONGA (Cook Group): A magnificent island, rising to a height of 3,000 ft., clothed to the tops of the mountains with splendid vegetation. It has abundant streams, considerable tracts of sloping land, and rich alluvial valleys. The two harbours are poor.

MANGAIA, the south-easternmost of the Cook Group, is of volcanic origin, and about thirty miles in circumference. The productions, which are numerous and cheap, are obtained by assiduous labour.

ATIU (Cook Group) resembles Mangaia in appearance and extent. It is a mere bank of coral, 10 ft. or 12 ft. high, steep and rugged, except where there are small sandy beaches and some clefts, where the ascent is gradual.

AITUTAKI (Cook Group) presents a most fruitful appearance, its shores being bordered by flat land, on which are innumerable cocoanut and other trees, the higher ground being beautifully interspersed with lawns. It is eighteen miles in circuit.

MAUKE or Parry Island (Cook Group) is a low island; it is about two miles in diameter, well wooded, and inhabited.

MITIARO (Cook Group) is a low island, from three to four miles long and one mile wide.

HERVEY ISLANDS (Cook Group): This group consists of three islands, surrounded by a reef, which may be six leagues in circumference.

NIUE, or Savage Island, lying east of the Friendly Islands, is a coral island, thirty-six miles in circumference, rising to a height of 200 ft. It has the usual tropical productions.

PALMERSTON ISLAND, lying about 500 miles east of Niue and about 220 from the nearest island of the Cook Group (Aitutaki), is

remarkable as the "San Pablo" of Magellan, the first island discovered in the South Sea. It has no harbour. The soil is fairly fertile, and there is some good hardwood timber.

PENRHYN ISLAND (Tongareva) lies about 300 miles north-east of Manahiki. It is one of the most famous pearl islands in the Pacific, and there is a splendid harbour, a lagoon with two entrances, fit for ships of any size.

MANAHIKI, lying about 400 miles eastward of Danger Island, is an atoll, about thirty miles in circumference, valuable from the extent of the cocoanut groves. The interior lagoon contains a vast deposit of pearl-shell.

RAKAANGA is an atoll, three miles in length and of equal breadth.

DANGER ISLAND (Pukapuka; "San Bernardo" of the Spaniards). Next to the 10th parallel, but rather north of the latitude of the Navigators, and east of them are a number of small atolls. Of these, the nearest to the Samoan Group—about 500 miles—is Danger Island, bearing north-west of Suwarrow about 250 miles. The productions are cocoanuts, bêche-de-mer, and pearl-shell. Tomano-trees (a timber resembling mahogany, are plentiful, specimens having been seen 20 ft. in circumference and 200 ft. in height. From the seeds of this tree is distilled the famous "*Woondel* oil" of the Pacific. There are several other valuable hardwoods.

SUWARROW ISLAND has one of the best harbours in the Pacific. It lies about 500 miles east of Apia, the capital of the Samoan Group. It is a coral atoll, of a triangular form, fifty miles in circumference, the reef having an average width of half a mile across, enclosing a land-locked lagoon twelve miles by eight. The entrance is half a mile wide, and there is accommodation for all the ships in the Pacific to ride in safety in all weathers, with depths of from three to thirty fathoms. It is out of the track of hurricanes, uninhabited, but capable by its fertility of supporting a small population. As a depot for the collection of trade from the various islands it ought to be very valuable.

CONSTITUTION.

British sovereignty was proclaimed over New Zealand in January, 1840, and the country became a dependency of New South Wales until the 3rd May, 1841, when it was made a separate colony. The seat of Government was at Auckland, and the Executive included the Governor, and three gentlemen holding office as Colonial Secretary, Attorney-General, and Colonial Treasurer.

The successors of these gentlemen, appointed in August, 1841, May, 1842, and January, 1844, respectively, continued in office until the establishment of Responsible Government on the 7th May, 1856. Only one of them—Mr. Swainson, the Attorney-General—sat as a member of the first General Assembly, opened on the 27th May

1854. During the session of that year there were associated with the permanent members of the Executive Council certain members of the General Assembly. These latter held no portfolios.

The Government of the colony was at first vested in the Governor, who was responsible only to the Crown; but in 1852 an Act granting representative institutions to the colony was passed by the Imperial Legislature. Under it the constitution of a General Assembly for the whole colony was provided for, to consist of a Legislative Council, the members of which were to be nominated by the Governor, and of an elective House of Representatives. The first session of the General Assembly was opened on the 27th May, 1854, but the members of the Executive were not responsible to Parliament. The first Ministers under a system of Responsible Government were appointed on the 18th April, 1856. By the Act of 1852 the colony was divided into six provinces, each to be presided over by an elective Superintendent, and to have an elective Provincial Council, empowered to legislate, except on certain specified subjects. The franchise amounted practically to household suffrage. In each case the election was for four years, but a dissolution of the Provincial Council by the Governor could take place at any time, necessitating a fresh election both of the Council and of the Superintendent. The Superintendent was chosen by the whole body of electors of the province; each member of the Provincial Council by the electors of a district. The Provincial Governments, afterwards increased to nine, remained as integral parts of the Constitution of the colony until the 1st November, 1876, when they were abolished by an Act of the General Assembly, that body having been vested with the power of altering the Constitution Act. On the same day an Act of the General Assembly which subdivided the colony (exclusive of the areas included within municipalities) into counties, and established a system of local county government, came into force.

GOVERNMENT.

The Governor is appointed by the King. His salary is £5,000 a year, with an annual allowance of £1,500 on account of his estatablishment, and of £500 for travelling-expenses, provided by the colony.

Members of the Legislative Council hold their seats under writs of summons from the Governor. Till the year 1891 the appointments were for life; but in September of that year an Act was passed making appointments after that time tenable for seven years only, though Councillors may be reappointed. In either case seats may be vacated by resignation or extended absence. Two members of the Council are aboriginal native chiefs.

The members of the House of Representatives are elected for three years from the time of each general election; but at any time a dissolution of Parliament by the Governor may render a general election necessary. Four of the members are representatives of

Native constituencies. An Act was passed in 1887 which provided that, on the dissolution of the then General Assembly, the number of members to be thereafter elected to the House of Representatives should be seventy-four in all, of whom four were to be elected, under the provisions of the Maori Representation Acts, as representatives of Maori electors only. For the purposes of European representation the colony is divided into sixty-two electoral districts, four of which—the Cities of Auckland, Wellington, Christchurch, and Dunedin—return each three members, and all the other electorates one each.* Members of the House of Representatives are chosen by the votes of the inhabitants in every electoral district appointed for that purpose. By "The Members of the House of Representatives Disqualification Act, 1897," no person, who, being a bankrupt within the meaning of "The Bankruptcy Act, 1892," has not obtained an order of discharge under that Act shall be qualified to be nominated as a candidate for election, or to be elected, or to take his seat as a member of the House of Representatives, anything in "The Electoral Act, 1893," or any other Act to the contrary notwithstanding.

In 1889 an amendment of the Representation Act was passed, which contained a provision prohibiting any elector from giving his vote in respect of more than one electorate at any election. "The Electoral Act, 1893," extended to women of both races the right to register as electors, and to vote at the elections for members of the House of Representatives. The qualification for registration is the same for both sexes. No person is entitled to be registered on more than one electoral roll within the colony. Women are not qualified to be elected as members of the House of Representatives. The electoral laws are the subject of special comment further on in this work. Every man registered as an elector, and not coming within the meaning of section 8 of "The Electoral Act, 1893," (*i.e.*, alien, lunatic, public offender, defaulter, &c.), is qualified to be elected a member of the House of Representatives for any electoral district. For European representation every adult person, if resident one year in the colony and three months in one electoral district, can be registered as an elector. Freehold property of the value of £25 held for six months preceding the day of registration until 1896 entitled a man or woman to register, if not already registered under the residential qualification. But the Amendment Act of 1896 abolished the property qualification (except in case of existing registrations), and residence alone now entitles a man or woman to have his or her name placed upon an electoral roll. For Maori representation every adult Maori resident in any Maori electoral district (of which there are four only in the colony) can vote. Registration is not required in Native districts.

* "The Representation Act, 1900," provides that, on the expiration by effluxion of time or other sooner determination of the present General Assembly, the number of members for purposes of European representation to be thereafter elected to the House of Representatives shall be seventy-six instead of seventy, and that there are to be six new districts, one for each additional member.

The Seat of Government.

Up to the year 1865 the seat of Government of New Zealand was at Auckland. Several attempts were made by members of Parliament, by motions in the Legislative Council and House of Representatives, to have it removed to some more central place; but it was not until November, 1863, that Mr. Domett (the then ex-Premier) was successful in carrying resolutions in the House of Representatives that steps should be taken for appointing some place in Cook Strait as the permanent seat of Government in the colony. The resolutions adopted were: "(1.) That it has become necessary that the seat of Government in the colony should be transferred to some suitable locality in Cook Strait. (2.) That, in order to promote the accomplishment of this object, it is desirable that the selection of the particular site in Cook Strait should be left to the arbitrament of an impartial tribunal. (3.) That, with this view, a Bill should be introduced to give effect to the above resolutions." On the 25th November an address was presented to the Governor, Sir George Grey, K.C.B., by the Commons of New Zealand, requesting that the Governors of the Colonies of New South Wales, Victoria, and Tasmania, might each be asked to appoint one Commissioner for the purpose of determining the best site in Cook Strait. Accordingly, the Hon. Joseph Docker, M.L.C., New South Wales; the Hon. Sir Francis Murphy, Speaker of the Legislative Council, Victoria; and R. C. Gunn, Esq., Tasmania, were appointed Commissioners.

These gentlemen, having made a personal inspection of all suitable places, arrived at the unanimous decision "that Wellington, in Port Nicholson, was the site upon the shores of Cook Strait which presented the greatest advantages for the administration of the government of the colony."

The seat of Government was, therefore, in accordance with the recommendation of the Commissioners, removed to Wellington in February, 1865.

Public Works.

Nearly all the public works of New Zealand are in the hands of the Government of the colony, and in the early days they simply kept pace with the spread of settlement. In 1870, however, a great impetus was given to the progress of the whole country by the inauguration of the "Public Works and Immigration Policy," which provided for carrying out works in advance of settlement. Railways, roads, and water-races were constructed, and immigration was conducted on a large scale. As a consequence, the population increased from 267,000 in 1871 to 501,000 in 1881, and to 787,657 in December, 1901, exclusive of Maoris.

SUCCESSIVE GOVERNORS.

SUCCESSION OF GOVERNORS OF NEW ZEALAND, AND THE DATES ON WHICH THEY ASSUMED AND RETIRED FROM THE GOVERNMENT.

Captain William Hobson, R.N., from Jan., 1840, to 10 Sept., 1842.

[British sovereignty was proclaimed by Captain Hobson in January, 1840, and New Zealand became a dependency of the Colony of New South Wales until 3rd May, 1841, at which date it was proclaimed a separate colony. From January, 1840, to May, 1841, Captain Hobson was Lieutenant-Governor of New Zealand under Sir George Gipps, Governor of New South Wales, and from May, 1841, Governor of New Zealand; the seat of Government being at Auckland, where he died in September, 1842. From the time of Governor Hobson's death, in September, 1842, until the arrival of Governor Fitzroy, in December, 1843, the Government was carried on by the Colonial Secretary, Lieutenant Shortland.]

Lieutenant Shortland, Administrator, from 10 Sept., 1842, to 26 Dec., 1843.

Captain Robert Fitzroy, R.N., from 26 Dec., 1843, to 17 Nov., 1845.

Captain Grey (became Sir George Grey, K.C.B., in 1848), from 18 Nov., 1845, to 31 Dec., 1853.

[Captain Grey held the commission as Lieutenant-Governor of the colony until the 1st January, 1848, when he was sworn in as Governor-in-Chief over the Islands of New Zealand, and as Governor of the Province of New Ulster and Governor of the Province of New Munster. After the passing of the New Zealand Constitution Act, Sir George Grey was, on the 13th September, 1852, appointed Governor of the colony, the duties of which office he assumed on the 7th March, 1853. In August, 1847, Mr. E. J. Eyre was appointed Lieutenant-Governor of New Munster: he was sworn in, 28th January, 1848. On 3rd January, 1848, Major-General George Dean Pitt was appointed Lieutenant-Governor of New Ulster: he was sworn in, 14th February, 1848; died, 8th January, 1851; and was succeeded as Lieutenant-Governor by Lieutenant-Colonel Wynyard, appointed 14th April, 1851; sworn in, 26th April, 1851. The duties of the Lieutenant-Governor ceased on the assumption by Sir George Grey of the office of Governor, on the 7th March, 1853.]

Lieutenant-Colonel Robert Henry Wynyard, C.B., Administrator, from 3 Jan., 1854, to 6 Sept., 1855.

Colonel Thomas Gore Browne, C.B., from 6 Sept., 1855, to 2 Oct., 1861.

Sir George Grey, K.C.B., Administrator, from 3 Oct., 1861; Governor, from 4 Dec., 1861, to 5 Feb., 1868.

Sir George Ferguson Bowen, G.C.M.G., from 5 Feb., 1868, to 19 Mar., 1873.

Sir George Alfred Arney, Chief Justice, Administrator, from 21 Mar. to 14 June, 1873.

Sir James Fergusson, Baronet, P.C., from 14 June, 1873, to 3 Dec., 1874.

The Marquis of Normanby, P.C., G.C.M.G., Administrator, from 3 Dec., 1874; Governor, from 9 Jan., 1875, to 21 Feb., 1879.

James Prendergast, Esquire, Chief Justice, Administrator, from 21 Feb. to 27 Mar., 1879.

Sir Hercules George Robert Robinson, G.C.M.G., Administrator, from 27 Mar., 1879; Governor, from 17 April, 1879, to 8 Sept., 1880.

James Prendergast, Esquire, Chief Justice, Administrator, from 9 Sept. to 29 Nov., 1880.

The Honourable Sir Arthur Hamilton Gordon, G.C.M.G., from 29 Nov., 1880, to 23 June, 1882.

Sir James Prendergast, Chief Justice, Administrator, from 24 June, 1882, to 20 Jan., 1883.

Lieutenant-General Sir William Francis Drummond Jervois, G.C.M.G., C.B., from 20 Jan., 1883, to 22 Mar., 1889.

Sir James Prendergast, Chief Justice, Administrator, from 23 Mar. to 2 May, 1889.

The Earl of Onslow, G.C.M.G., from 2 May, 1889, to 24 Feb., 1892.

Sir James Prendergast, Chief Justice, Administrator, from 25 Feb., to 6 June, 1892.

The Earl of Glasgow, G.C.M.G., from 7 June, 1892, to 6 Feb., 1897.

Sir James Prendergast, Chief Justice, Administrator, from 8 Feb., 1897, to 9th Aug., 1897.

The Earl of Ranfurly, G.C.M.G., from 10th Aug., 1897.

SUPREME COURT JUDGES.

SUPREME COURT JUDGES, PAST AND PRESENT, WITH DATES OF APPOINTMENT, AND OF RESIGNATION OR DEATH.

Sir W. Martin, appointed Chief Justice, 10 Jan., 1842. Resigned, 12 June, 1857.

H. S. Chapman, appointed, 26 Dec., 1843. Resigned, 30 July, 1850. Reappointed, 23 Mar., 1864. Resigned, 31 Mar., 1875.

S. Stephen, appointed, 30 July, 1850. Appointed Acting Chief Justice, 20 Oct., 1855. Died, 13 Jan., 1858.

Daniel Wakefield, appointed, Oct., 1855. Died, Oct., 1857.

Hon. H. B. Gresson, appointed temporarily, 8 Dec., 1857. Permanently, 1 July, 1862. Resigned, 31 Mar., 1875.

Sir G. A. Arney, appointed Chief Justice, 1 Mar., 1858. Resigned 31 Mar., 1875.

A. J. Johnston, appointed, 2 Nov., 1858. Died, 1 June, 1888.

C. W. Richmond, appointed, 20 Oct., 1862. Died, 3 Aug., 1895.

J. S. Moore, appointed temporarily, 15 May, 1866. Relieved, 30 June, 1868.

C. D. R. Ward, appointed temporarily, 1 Oct., 1868. Relieved, May, 1870. Appointed temporarily, 21 Sept., 1886. Relieved, 12 Feb., 1889.

Sir J. Prendergast, appointed Chief Justice, 1 April, 1875. Resigned, 25 May, 1899.

T. B. Gillies, appointed, 3 Mar., 1875. Died, 26 July, 1889.
J. S. Williams, appointed, 3 Mar., 1875.
J. E. Denniston, appointed, 11 Feb., 1889.
E. T. Conolly, appointed, 19 Aug., 1889.
Hon. Sir P. A. Buckley, K.C.M.G., appointed, 20 Dec., 1895. Died, 18 May, 1896.
W. B. Edwards, appointed, 11 July, 1896.
F. W. Pennefather, appointed temporarily, 25 April, 1898. Resigned, 24 April, 1899.
Hon. Sir Robert Stout, K.C.M.G., appointed Chief Justice, 22 June, 1899.
J. C. Martin, acting Judge, appointed, 12 April, 1900. Resigned, 4 Dec., 1900.
Theophilus Cooper, appointed, 21 Feb., 1901.

EXECUTIVE COUNCIL, 1843–56.

MEMBERS OF THE EXECUTIVE COUNCIL OF THE COLONY OF NEW ZEALAND PREVIOUS TO THE ESTABLISHMENT OF RESPONSIBLE GOVERNMENT (NOT INCLUDING THE OFFICERS COMMANDING THE FORCES).

Willoughby Shortland, Colonial Secretary, from 3 May, 1841, to 31 Dec., 1843; succeeded by Mr. Sinclair.
Francis Fisher, Attorney-General, from 3 May to 10 Aug., 1841; succeeded by Mr. Swainson.
George Cooper, Colonial Treasurer, from 3 May, 1841, to 9 May, 1842; succeeded by Mr. Shepherd.
William Swainson, Attorney-General, from 10 Aug., 1841, to 7 May, 1856.
Alexander Shepherd, Colonial Treasurer, from 9 May, 1842, to 7 May, 1856.
Andrew Sinclair, Colonial Secretary, from 6 Jan., 1844, to 7 May, 1856.

[The three gentlemen last mentioned were nominated by Her late Majesty as *ex officio* members of the Executive Council. Two of them, the Colonial Secretary and the Colonial Treasurer, were not members of the General Assembly, opened for the first time 27th May, 1854, but all three remained in office until the establishment of Responsible Government.]

James Edward FitzGerald, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.
Henry Sewell, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.
Frederick Aloysius Weld, M.H.R., without portfolio, from 14 June to 2 Aug., 1854.
Francis Dillon Bell, M.L.C., without portfolio, from 30 June to 11 July, 1854.
Thomas Houghton Bartley, M.L.C., without portfolio, from 14 July to 2 Aug., 1854.

Thomas Spencer Forsaith, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.
Edward Jerningham Wakefield, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.
William Thomas Locke Travers, M.H.R., without portfolio, 31 Aug. to 2 Sept., 1854.
James Macandrew, M.H.R., without portfolio, from 31 Aug. to 2 Sept., 1854.

PARLIAMENTS.

NUMBER OF PARLIAMENTS SINCE THE CONSTITUTION ACT PASSED FOR CONFERRING REPRESENTATIVE INSTITUTIONS UPON THE COLONY OF NEW ZEALAND, WITH THE DATES OF OPENING AND CLOSING OF SESSIONS AND DATES OF DISSOLUTION.

Parliament.	Date of Opening of Sessions.	Date of Prorogation.
First (dissolved 15th September, 1855)	27 May, 1854 ..	9 August, 1854.
	31 August, 1854 ..	16 September, 1854.
	8 August, 1855 ..	15 September, 1855.
Second (dissolved 5th November, 1860)	15 April, 1856 ..	16 August, 1856.
	(No session in 1857)	
	10 April, 1858 ..	21 August, 1858.
	(No session in 1859)	
	30 July, 1860 ..	5 November, 1860.
Third (dissolved 27th January, 1866)	3 June, 1861 ..	7 September, 1861.
	7 July, 1862 ..	15 September, 1862.
	19 October, 1863 ..	14 December, 1863.
	24 November, 1864	13 December, 1864.
	26 July, 1865 ..	30 October, 1865.
Fourth (dissolved 30th December, 1870)	30 June, 1866 ..	8 October, 1866.
	9 July, 1867 ..	10 October, 1867.
	9 July, 1868 ..	20 October, 1868.
	1 June, 1869 ..	3 September, 1869.
	14 June, 1870 ..	13 September, 1870.
Fifth (dissolved 6th December, 1875)	14 August, 1871 ..	16 November, 1871.
	16 July, 1872 ..	25 October, 1872.
	15 July, 1873 ..	3 October, 1873.
	3 July, 1874 ..	31 August, 1874.
	20 July, 1875 ..	21 October, 1875.

PARLIAMENTS—*continued.*

Parliament.	Date of Opening of Sessions.	Date of Prorogation.
Sixth (dissolved 15th August, 1879)	15 June, 1876 ..	31 October, 1876.
	19 July, 1877 ..	10 December, 1877.
	26 July, 1878 ..	2 November, 1878.
	11 July, 1879 ..	11 August, 1879.
Seventh (dissolved 8th November, 1881)	24 September, 1879	19 December, 1879.
	28 May, 1880 ..	1 September, 1880.
	9 June, 1881 ..	24 September, 1881.
Eighth (dissolved 27th June, 1884)	18 May, 1882 ..	15 September, 1882.
	14 June, 1883 ..	8 September, 1883.
	5 June, 1884 ..	24 June, 1884.
Ninth (dissolved 15th July, 1887) ..	7 August, 1884 ..	10 November, 1884.
	11 June, 1885 ..	22 September, 1885.
	13 May, 1886 ..	18 August, 1886.
	26 April, 1887 ..	10 July, 1887.
Tenth (dissolved 3rd October, 1890)	6 October, 1887 ..	23 December, 1887.
	10 May, 1888 ..	31 August, 1888.
	20 June, 1889 ..	19 September, 1889.
	19 June, 1890 ..	18 September, 1890.
Eleventh (dissolved 8th November, 1893)	23 January, 1891 ..	31 January, 1891.
	11 June, 1891 ..	5 September, 1891.
	23 June, 1892 ..	12 October, 1892.
	22 June, 1893 ..	7 October, 1893.
Twelfth (dissolved 14th November, 1896)	21 June, 1894 ..	24 October, 1894.
	20 June, 1895 ..	2 November, 1895.
	11 June, 1896 ..	19 October, 1896.
Thirteenth (dissolved 15th November, 1899)	7 April, 1897 ..	12 April, 1897.
	23 September, 1897	22 December, 1897.
	24 June, 1898 ..	5 November, 1898.
	23 June, 1899 ..	24 October, 1899.
Fourteenth	22nd June, 1900 ..	22nd October, 1900.
	1st July, 1901.	8th November, 1901.

SUCCESSIVE MINISTRIES

Since the Establishment of Responsible Government in New Zealand in 1856.

Name of Ministry.	Assumed Office.	Retired.
1. Bell-Sewell	7 May, 1856 ..	20 May, 1856.
2. Fox	20 May, 1856 ..	2 June, 1856.
3. Stafford	2 June, 1856 ..	12 July, 1861.
4. Fox	12 July, 1861 ..	6 August, 1862.
5. Domett	6 August, 1862 ..	30 October, 1863.
6. Whitaker-Fox	30 October, 1863 ..	24 November, 1864.
7. Weld	24 November, 1864	16 October, 1865.
8. Stafford	16 October, 1865 ..	28 June, 1869.
9. Fox	28 June, 1869 ..	10 September, 1872.
10. Stafford	10 September, 1872	11 October, 1872.
11. Waterhouse	11 October, 1872 ..	3 March, 1873.
12. Fox	3 March, 1873 ..	8 April, 1873.
13. Vogel	8 April, 1873 ..	6 July, 1875.
14. Pollen	6 July, 1875 ..	15 February, 1876.
15. Vogel	15 February, 1876	1 September, 1876.
16. Atkinson	1 September, 1876	13 September, 1876.
17. Atkinson (reconstituted) ..	13 September, 1876	13 October, 1877.
18. Grey	15 October, 1877 ..	8 October, 1879.
19. Hall	8 October, 1879 ..	21 April, 1882.
20. Whitaker	21 April, 1882 ..	25 September, 1883.
21. Atkinson	25 September, 1883	16 August, 1884.
22. Stout-Vogel	16 August, 1884 ..	28 August, 1884.
23. Atkinson	28 August, 1884 ..	3 September, 1884.
24. Stout-Vogel	3 September, 1884	8 October, 1887.
25. Atkinson	8 October, 1887 ..	24 January, 1891.
26. Ballance	24 January, 1891 ..	1 May, 1893.*
27. Seddon	1 May, 1893.	

* Owing to the death of the Premier, the Hon. J. Ballance, on 27th April, 1893.

PREMIERS OF SUCCESSIVE MINISTRIES.

Name of Premier.	Name of Premier.
Henry Sewell.	Sir Julius Vogel, K.C.M.G.
William Fox.	Harry Albert Atkinson.
Edward William Stafford.	Harry Albert Atkinson (Ministry reconstituted).
William Fox.	Sir George Grey, K.C.B.
Alfred Domett.	Hon. John Hall.
Frederick Whitaker.	Frederick Whitaker, M.L.C.
Frederick Aloysius Weld.	Harry Albert Atkinson.
Edward William Stafford.	Robert Stout.
William Fox.	Harry Albert Atkinson.
Hon. Edward William Stafford.	Sir Robert Stout, K.C.M.G.
George Marsden Waterhouse.	Sir Harry Albert Atkinson, K.C.M.G.
Hon. William Fox.	John Ballance.
Hon. Julius Vogel, C.M.G.	Rt. Hon. Richard John Seddon, P.C.
Daniel Pollen, M.L.C.	

SPEAKERS OF THE LEGISLATIVE COUNCIL,

WITH DATES OF THEIR APPOINTMENT AND DATES OF RETIREMENT OR DEATH.

Name of Speaker.	Date of Appointment.	Date of Retirement or Death.
Hon. William Swainson	16 May, 1854 ..	8 August, 1855.
Hon. Frederick Whitaker	8 August, 1855 ..	12 May, 1856.
Hon. Thomas Houghton Bartley ..	12 May, 1856 ..	1 July, 1868.
Hon. Sir John Larkins Cheese Richardson, Kt.	1 July, 1868 ..	14 June, 1879.
Hon. Sir William Fitzherbert, K.C.M.G.	14 June, 1879 ..	23 January, 1891.
Hon. Sir Harry Albert Atkinson, K.C.M.G.	23 January, 1891	28 June, 1892.
Hon. Sir Henry John Miller	8 July, 1892. 6 October, 1897.	

SPEAKERS OF THE HOUSE OF REPRESENTATIVES,

WITH DATES OF THEIR ELECTION AND DATES OF RETIREMENT.

Name of Speaker.	Date of Election.	Date of Retirement.
Sir Charles Clifford, Bart.	26 May, 1854	
	15 April, 1856 ..	9 June, 1861.
Sir David Monro, Kt. Bach. ..	3 June, 1861	
	30 June, 1866 ..	13 Sept., 1870.
Sir Francis Dillon Bell, K.C.M.G., C.B.	14 August, 1871 ..	21 October, 1875.
Sir William Fitzherbert, K.C.M.G. ..	15 June, 1876 ..	13 June, 1879.
Sir George Maurice O'Rorke, Kt. Bach.	11 July, 1879	
	24 September, 1879	
	18 May, 1882	
	7 August, 1884	
	6 October, 1887	3 October, 1890.
Hon. Major William Jukes Steward ..	23 January, 1891	8 November, 1893.
Hon. Sir George Maurice O'Rorke, Kt. Bach.	21 June, 1894	
	6 April, 1897.	
	22 June, 1900.	

FOREIGN CONSULS.

CONSULS OF FOREIGN COUNTRIES RESIDING IN, OR WITH JURISDICTION OVER, NEW ZEALAND, 3RD APRIL, 1901.

Country represented.	Office held.	Name.	Place of Residence.
Austria-Hungary	Consul ..	E. Langguth	Auckland.
Belgium ..	Consul-General for Australia and Fiji	Edouard Pollet	Melbourne.
" ..	Consul ..	Hon. Charles John Johnston	Wellington.
" ..	" " ..	Joseph James Kinsey ..	Christchurch.

FOREIGN CONSULS—*continued.*

Country represented:	Office held.	Name.	Place of Residence.
Belgium ..	Consul ..	John Burns	Auckland.
" ..	" ..	George Lyon Denniston ..	Dunedin.
Chili	" ..	William Brown	Sydney.
Denmark ..	Consul (for North Island); Chief Consular Officer in New Zealand	Francis Henry Dillon Bell ..	Wellington.
" ..	Consul (for South Island)	Emil Christian Skog ..	Christchurch.
" ..	Vice-Consul ..	Frederick Ehrenfrid Baume	Auckland.
" ..	" ..	William Edward Perry ..	Hokitika.
" ..	" ..	Peter Jorgen Wilhelm Holsted	Dunedin.
France ..	Consul (for New Zealand)	Count Louis Antoine Marie Joseph Henri De Courte	Wellington.
" ..	Hon. Vice-Consul	Percival Clay Neill ..	Dunedin.
" ..	Consular Agent	George Humphreys ..	Christchurch.
" ..	" ..	George Dunnet	Auckland.
German Empire	Consul-General for Commonwealth of Australia, New Zealand, and Fiji	Paul Von Buri	Sydney.
"	Consul ..	Carl Seegner	Auckland.
"	" ..	Bendix Hallenstein ..	Dunedin.
"	" ..	Philip Kippenberger ..	Christchurch.
"	" ..	Friedrich August Krull ..	Wanganui.
"	Vice-Consul ..	Eberhard Focke	Wellington.
Hawaiian Islands	Consul-General (for Australasia)	W. E. Dixon	Sydney.
"	Consul, Acting	George Dunnet	Auckland.
Italy	Consul-General for Commonwealth of Australia, New Zealand, and Fiji	C. Bertola	Melbourne.
"	Consular Agent	Thomas Wallace	Christchurch.
"	"	George Fisher	Wellington.
"	"	Edward Bowes Cargill ..	Dunedin.
"	"	Geraldo Giuseppe Perotti ..	Greymouth.
"	"	Richard A. Carr	Auckland.
Japan ..	Consul ..	A. S. Aldrich	Wellington.
Liberia ..	" ..	A. M. Meyers	Auckland.
Netherlands ..	Consul-General for Commonwealth of Australia, New Zealand, and Fiji	W. L. Bossehart	Melbourne.
..	Consul ..	Hon. Charles John Johnston	Wellington.
..	Vice-Consul ..	Edward Bowes Cargill ..	Dunedin.
..	" ..	Ambrose Millar	Auckland.
..	" ..	Harold Featherston Johnston	Wellington.

FOREIGN CONSULS—*continued.*

Country represented.	Office held.	Name.	Place of Residence.
Portugal ..	Consul ..	John Duncan	Wellington.
" ..	Vice-Consul ..	Henry Rees George ..	Auckland.
" ..	" ..	Ian G. Duncan	Wellington.
" ..	" ..	Charles William Rattray ..	Dunedin.
Russia ..	Consul ..	Nicolas Passek	Melbourne.
Spain	Vice-Consul ..	(Vacant)	Christchurch
"	Acting " ..	Thomas Jamieson	"
"	Honorary Vice-Consul	Alexander H. Turnbull ..	Wellington.
Sweden and Norway	Consul ..	Arthur Edward Pearce ..	Wellington.
"	Vice-Consul ..	Frank Graham	Christchurch.
"	Acting " ..	Frederick E. Baume ..	Auckland.
United States ..	Consul (for New Zealand)	Frank Dillingham ..	Auckland.
" ..	Vice-Consul ..	Leonard A. Bachelder ..	Auckland.
" ..	Consular Agent	Robert Pitcaithley ..	Christchurch
" ..	"	John Duncan	Wellington..
" ..	"	Frederick Orlando Bridgman	Dunedin.

AGENT-GENERAL FOR NEW ZEALAND IN LONDON.

The Hon. W. P. Reeves, Westminster Chambers, 13, Victoria Street, S.W. Secretary—Walter Kennaway, C.M.G.

THE COLONIAL OFFICE.

APRIL, 1902.

(DOWNING STREET, S.W., LONDON), WITH DATES OF APPOINTMENT.

Principal Secretary of State for the Colonies—The Right Hon. Joseph Chamberlain, M.P., 28th June, 1895.

Under-Secretaries: Parliamentary—The Right Hon. the Earl of Onslow, G.C.M.G., November, 1900. Permanent—Sir Montague Frederick Ommaney, K.C.B., K.C.M.G., 1900.

Assistant Under-Secretaries: Frederick Graham, C.B., 1st March, 1897; Charles P. Lucas, C.B.; H. B. Cox (Legal); and Reginald L. Antrobus, C.B.

CROWN AGENTS FOR THE COLONIES.

DOWNING STREET, S.W. CITY OFFICE: 1, TOKENHOUSE BUILDINGS, E.C., LONDON.

Crown Agents—Sir Ernest Edward Blake, K.C.M.G., Major Maurice Alexander Cameron, R.E., C.M.G., and William Hepworth Mercer.

HONOURS HELD BY COLONISTS.

Buller, Sir Walter Lawry, F.R.S., C.M.G., 1875; K.C.M.G., 1886.
Cadman, Hon. Alfred Jerome, C.M.G., 1901.
Grace, Hon. Morgan Stanislaus, C.M.G., 1890.
Gresson, Hon. H.B., 1877.
Gudgeon, Lieut.-Colonel Walter Edward, C.M.G., 1901.
Hall, Hon. Sir John, K.C.M.G., 1882.
Hector, Sir James, F.R.S., C.M.G., 1875; K.C.M.G., 1887.
Kennaway, Walter, Esq., C.M.G., 1897.
Miller, Hon. Sir Henry John, Knt.
Newall, Brevet-Colonel Stuart, C.B.
O'Rorke, Hon. Sir George Maurice, Knt. Bach., 1880.
Perceval, Sir Westby Brook, K.C.M.G, 1894.
Prendergast, Hon. Sir James, Knt. Bach., 1881.
Richardson, Hon. Edward, C.M.G., 1879.
Roberts, John, Esq., C.M.G., 1891.
Robin, Brevet-Colonel Alfred William, C.B.
Seddon, Right Hon. Richard John, P.C., 1897.
Stout, Hon. Sir Robert, K.C.M.G., 1886.
Walker, Hon. William Campbell, C.M.G., 1901.
Ward, Hon. Sir Joseph George, K.C.M.G., 1901.
Whitmore, Hon. Colonel Sir George Stoddart, C.M.G., 1869; K.C.M.G., 1882.

PERSONS ALLOWED TO RETAIN THE TITLE OF "HONOURABLE" WITHIN HER MAJESTY'S DOMINIONS.

By despatch from the Secretary of State for the Colonies, dated Downing Street, 15th June, 1893, His Excellency the Governor was apprised that the title of "Honourable," appertaining to Members of the Executive and Legislative Councils in colonies possessing Responsible Government, whether confined to duration of office or continued for life, was approved by Her late Majesty for use and recognition throughout her dominions, either during office or for life, as the case may be.

By further despatch of 10th March, 1894, the Secretary of State announced that he was prepared in future to submit for the approval of the Sovereign the recommendation of the Governor of any colony having Responsible Government that the President of the Legislative Council or the Speaker of the Legislative Assembly may, on quitting office after three years' service in their respective offices, be permitted to retain the title of "Honourable." This title is now held by Sir G. M. O'Rorke and Major William Jukes Steward.

Besides the Members of the Executive and Legislative Councils, the following ex-Ministers whose names do not appear in the list given above are allowed, as such, to retain the title of "Honourable": Bryce, John, 1884; Cadman, A. J., 1901; Fergus, Thomas, 1891; Haultain, Colonel T. M., 1870; Hislop, Thomas W., 1891; Johnston, Walter W., 1884; Mitchelson, Edwin, 1891; Oliver, Richard, 1884; Reeves, William P., 1896; Richardson, George F., 1891; Rolleston, William, 1884; Thompson, Thomas, 1900; Tole, Joseph A., 1888.

GOVERNOR OF NEW ZEALAND.

RANFURLY, His Excellency The Right Honourable Sir Uchter John Mark, fifth Earl of (Ireland, 1831), Viscount Northland, (1791), Baron Welles (1781), Lord-in-Waiting to Her late Majesty (1895–97), Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George; Knight of Justice and Member of the Council of the Order of St. John of Jerusalem; son of third earl, brother of fourth earl; born 14th August, 1856; succeeded, 1875; married, 1880, the Honourable Constance Elizabeth, only child of seventh Viscount Charlemont, C.B. Living issue: One son (Viscount Northland), two daughters (Ladies Constance and Eileen Knox). Appointed 6th April, 1897, and assumed office 10th August, 1897, as Governor and Commander-in-Chief in and over His Majesty's Colony of New Zealand and its Dependencies. Salary, £5,000. Allowance on account of establishment £1,500, and travelling-expenses £500 per annum. The allowance is not payable for any period during which the Governor is absent from the colony. Residences: Northland House, Dungannon, Ireland; Government House, Wellington; Government House, Auckland.

Private Secretary and Aide-de-Camp: Dudley Alexander (Captain, "The Prince of Wales's Own," West Yorkshire Regiment).

Assistant Private Secretary: The Honourable Charles Edward Hill-Trevor.

ADMINISTRATOR OF THE GOVERNMENT. — The Chief Justice appointed under a dormant commission.

EXECUTIVE COUNCIL.

2ND MAY, 1902.

THE annual appropriation for Ministers' salaries is fixed by statute at the sum of £8,900, of which £1,600 is for the Prime Minister, £1,300 for the Minister for Railways, and £1,000 for each of six other Ministers. All Ministers to whom salaries are appropriated are members of the Executive Council, holding one or more of the offices specified by law. Members of the Executive Council travelling within the colony on public service are entitled to allowance not exceeding £1 10s. per day when so engaged, but not during the time a Minister is attending a session of the General Assembly. The members of the Executive Council to whom salaries are payable, and who are not otherwise provided with residences at the seat of Government, are entitled to an allowance in lieu thereof at the rate of £200 a year.

The Executive Council now consists of:—

His Excellency the GOVERNOR presiding.

Rt. Hon. Richard John Seddon, P.C., Prime Minister, Colonial Treasurer, Minister of Defence, and Minister of Labour.

Hon. Sir Joseph George Ward, K.C.M.G., Minister for Railways, Colonial Secretary, Postmaster-General and Commissioner of Electric Telegraphs, Minister of Industries and Commerce, and Minister of Public Health.
Hon. James Carroll, Native Minister and Commissioner of Stamp Duties.
Hon. William Campbell Walker, C.M.G., Minister of Education and Minister of Immigration.
Hon. William Hall-Jones, Minister for Public Works and Minister of Marine.
Hon. James McGowan, Minister of Justice and Minister of Mines. (23rd January, 1900.)
Hon. Thomas Young Duncan, Minister of Lands and Minister for Agriculture. (2nd July, 1900.)
Hon. Charles Houghton Mills, Commissioner of Trade and Customs. (29th October, 1900.)
(Vacant) Attorney-General.

Clerk of the Executive Council—Alexander James Willis.

THE GENERAL ASSEMBLY.

LEGISLATIVE COUNCIL.

The number of members at present constituting the Legislative Council is forty-two. The number cannot be less than ten, but is otherwise unlimited. Prior to 1891 Councillors summoned by the Governor held their appointments for life; but on the 17th of September of that year an Act was passed giving the Council power to elect its own Speaker for a period of five years, and making future appointments to the Council tenable for seven years only, to be reckoned from the date of the writ of summons of the Councillor's appointment, though every such Councillor may be reappointed. The qualifications are that the person to be appointed be of the full age of twenty-one years, and a subject of His Majesty, either natural-born or naturalised by or under any Act of the Imperial Parliament or by or under any Act of the General Assembly of New Zealand. All contractors to the public service to an amount of over £50 and Civil servants of the colony are ineligible as Councillors. Payment of Councillors is at the rate of £200 a year, payable monthly. Actual travelling-expenses to and from Wellington are also allowed. A deduction of £1 5s. per sitting day is made in case of an absence, except through illness or other unavoidable cause, exceeding fourteen sitting-days in any one session. Under "The Legislative Council Act, 1891," a seat is vacated by any member of the Council: (1.) If he takes any oath or makes any declaration or acknowledgment of allegiance, obedience, or adherence to any foreign Prince or Power; or (2), if he does, or concurs in, or adopts any act whereby he may become a subject or citizen of any foreign State or Power, or is entitled to the rights, privileges, or immunities of a subject of any foreign State or Power; or (3), if he is a bankrupt, or compounds

with his creditors under any Act for the time being in force; or (4), if he is a public defaulter, or is attainted of treason, or is convicted of felony or any infamous crime; or (5), if he resigns his seat by writing under his hand addressed to and accepted by the Governor; or (6), if for more than one whole session of the General Assembly he fails, without permission of the Governor notified to the Council, to give his attendance in the Council. By the Standing Orders of the Council, the presence of one-fourth of the members of the Council, exclusive of those who have leave of absence, is necessary to constitute a meeting for the exercise of its powers. This rule, however, may be altered from time to time by the Council.

The ordinary sitting-days are Tuesdays, Wednesdays, Thursdays, and Fridays, from 2.30 p.m. to 5 p.m., resuming again at 7.30 when necessary.

Roll of Members of the Honourable the Legislative Council of New Zealand, (May, 1902.)

Speaker—The Hon. Sir Henry John Miller, Kt.

Chairman of Committees—The Hon. William Douglas Hall Baillie.

Name.	Provincial District.	Date of Appointment.
Arkwright, the Hon. Francis	Wellington.	13 December, 1895.
Baillie, the Hon. William Douglas Hall ..	Marlborough.	8 March, 1861.†
Barnicoat, the Hon. John Wallis ..	Nelson.	14 May, 1883.†
Bolt, the Hon. William Mouat	Otago.	15 October, 1892.*
Bowen, the Hon. Charles Christopher ..	Canterbury.	23 January, 1891.†
Cadman, the Hon. Alfred Jerome, C.M.G.	Auckland.	21 December, 1899.
Feldwick, the Hon. Henry	Otago.	15 October, 1892.*
Fraser, the Hon. Francis Humphris ..	Wellington.	22 June, 1899.
Gourley, the Hon. Hugh	Dunedin.	22 June, 1899.
Grace, the Hon. Morgan Stanislaus, C.M.G.	Wellington.	13 May, 1870.†
Harris, the Hon. Benjamin	Auckland.	3 February, 1897.
Holmes, the Hon. James	Westland.	18 April, 1902.
Jenkinson, the Hon. John Edward ..	Canterbury.	6 June, 1893.‡
Jennings, the Hon. William Thomas ..	Auckland.	15 October, 1892.*
Johnston, the Hon. Charles John ..	Wellington.	23 January, 1891.†
Jones, the Hon. George	Otago.	13 December, 1895.
Kelly, the Hon. Thomas	Taranaki.	15 October, 1892.*
Kelly, the Hon. William	Auckland.	3 February, 1897.
Kenny, the Hon. Courtney William Aylmer Thomas	Marlborough.	15 May, 1885.†
Louisson, the Hon. Charles	Canterbury.	22 December, 1900.
McLean, the Hon. George	Otago.	19 December, 1881.†
Marshall, the Hon. James	Westland.	18 April, 1902.
Miller, the Hon. Sir Henry John, Kt. (Speaker)	Otago.	8 July, 1865.†
Montgomery, the Hon. William.. ..	Canterbury.	15 October, 1892.*
Morris, the Hon. George Bentham ..	Auckland.	15 May, 1885.†
Ormond, the Hon. John Davies ..	Hawke's Bay.	20 January, 1891.†
Peacock, the Hon. John Thomas ..	Canterbury.	9 October, 1877.†
Pinkerton, the Hon. David	Otago.	3 February, 1897.
Pitt, the Hon. Albert, Lieut.-Colonel ..	Nelson.	23 December, 1899.

* Reappointed, 16th October 1899. † Life members. ‡ Reappointed, 6th June, 1900

ROLL OF MEMBERS OF THE LEGISLATIVE COUNCIL—*continued.*

Name.	Provincial District.	Date of Appointment.
Reeves, the Hon. Richard Harman Jeffares	Nelson.	13 December, 1895.
Rigg, the Hon. John	Wellington.	6 June, 1893.‡
Scotland, the Hon. Henry	Taranaki.	24 February, 1868.†
Shrimski, the Hon. Samuel Edward ..	Otago.	15 May, 1885.†
Smith, the Hon. Alfred Lee	Otago.	18 June, 1898.
Smith, the Hon. William Cowper ..	Hawke's Bay.	13 December. 1895.
Stevens, the Hon. Edward Cephas John..	Canterbury.	7 March, 1882.†
Swanson, the Hon. William	Auckland.	15 May, 1885.†
Taiaroa, the Hon. Hori Kerei	Otago.	15 May, 1885.†
Tomoana, the Hon. Henare	Hawke's Bay.	24 June, 1898.
Twomey, the Hon. Jeremiah Matthew ..	Canterbury.	18 June, 1898.
Walker, the Hon. Lancelot	Canterbury.	15 May, 1885.†
Walker, the Hon. William Campbell, C.M G.	Canterbury..	15 October, 1892.*
Whitmore, the Hon. Sir George Stoddart, K.C.M.G.	Hawke's Bay	31 August, 1863.†
Williams, the Hon. Henry	Auckland ..	7 March, 1882.†

* Reappointed, 14th October, 1899. † Life Member. ‡ Reappointed, 6th June, 1900.

Clerk of Parliaments, Clerk of the Legislative Council, and Examiner of Standing Orders upon Private Bills—Leonard Stowe.
Clerk-Assistant—Arthur Thomas Bothamley.
Second Clerk-Assistant—George Moore.
Interpreter—Henry S. Hadfield.

HOUSE OF REPRESENTATIVES.

The number of members constituting the House of Representatives is seventy-four—seventy Europeans and four Maoris.§ This number was fixed by the Act of 1887, which came for the first time into practical operation at the general election of 1890. Previously (from 1881) the House consisted of ninety-five members—ninety-one Europeans and four Maoris. The North Island at present returns thirty-four European members, and the Middle Island thirty-six. The Cities of Auckland, Wellington, Christchurch, and Dunedin return each three members, and all other electoral districts one each. The elections are triennial, except in the case of a dissolution by the Governor. Every registered elector, being of the male sex, and free from any of the disqualifications mentioned in section 8 of "The Electoral Act, 1893," is eligible for membership. All contractors to the public service of New Zealand to whom any public money above the sum of £50 is payable, directly or indirectly, in any one financial year, as well as the Civil servants of the colony, are incapable of being elected as, or of sitting or voting as, members. The payment made to members of the House of Representatives is £25 per month, amounting to £300 per annum. £2 for every sitting-day exceeding fourteen is deducted on account of absence during session not due to sickness or other unavoidable cause. Travelling-expenses to and

§ See foot-note on page 18, *ante*.

from Wellington are also allowed. This scale of payment came into force on the 7th November, 1901, under the provisions of "The Payment of Members Act, 1901." Twenty members, inclusive of the Speaker, constitute a quorum. Unless otherwise ordered, the sitting-days of the House are Tuesdays, Wednesdays, Thursdays, and Fridays, from 2.30 p.m. to 5.30 p.m., resuming at 7.30 p.m. Order of admission to the Speaker's Gallery is by ticket obtained from the Speaker. The Strangers' Gallery is open free to the public.

Roll of Members of the House of Representatives. (2nd May, 1902).

Speaker—The Hon. Sir George Maurice O'Rorke, Kt. Bach.
Chairman of Committees—Arthur Robert Guinness.

Name.	Electoral District.	Date of Notification of Return of Writ.
For European Electorates.		
Allen, Edmund Giblett	Waikouaiti.	27 December, 1899.
Allen, James	Bruce.	"
Arnold, James Frederick ..	City of Dunedin.	"
Atkinson, Arthur Richmond ..	City of Wellington.	"
Barclay, Alfred Richard	City of Dunedin.	"
Bennet, James	Tuapeka.	"
Bollard, John	Eden.	"
Buddo, David	Kaiapoi.	"
Carncross, Walter Charles Frederick	Taieri.	"
Carroll, Hon. James	Waiapu.	"
Collins, William Whitehouse ..	City of Christchurch.	"
Colvin, James	Buller.	"
Duncan, Hon. Thomas Young ..	Oamaru.	"
Ell, Henry George	City of Christchurch.	"
Field, William Hughes	Otaki.	11 January, 1900.
Fisher, George	City of Wellington.	27 December, 1899.
Flatman, Frederick Robert ..	Geraldine.	"
Fowlds, George	City of Auckland.	"
Fraser, Alfred Levavasour Durell ..	Napier.	"
Fraser, William	Wakatipu.	"
Gilfedder, Michael	Wallace.	"
Graham, John	City of Nelson.	"
Guinness, Arthur Robert	Grey.	"
Hall, Charles	Waipawa.	"
Hall-Jones, Hon. William ..	Timaru.	"
Hanan, Josiah Alfred	Invercargill.	"
Hardy, Charles Albert Creery ..	Selwyn.	"
Haselden, Frederick Henry ..	Patea.	11 November, 1901.
Herries, William Herbert ..	Bay of Plenty.	27 December, 1899.
Hogg, Alexander Wilson ..	Masterton.	
Hornsby, John Thomas Marryat ..	Wairarapa.	
Houston, Robert Morrow ..	Bay of Islands.	"
Hutcheson, John	City of Wellington.	"
Lang, Frederic William	Waikato.	"
Laurenson, George	Lyttelton.	"
Lawry, Frank	Parnell.	"
Lethbridge, Frank Yates ..	Rangitikei.	"
Mackenzie, Thomas	Waihemo.	23 July, 1900.

ROLL OF MEMBERS OF THE HOUSE OF REPRESENTATIVES—*continued.*

Name.	Electoral District.	Date of Notification of Return of Writ.
For European Electorates—contd.		
McGowan, Hon. James	Thames.	27 December, 1899.
McGuire, Felix	Hawera.	"
McKenzie, Roderick	Motueka.	"
M'Lachlan, John	Ashburton,	"
McNab, Robert	Mataura.	"
Massey, William Ferguson ..	Franklin.	"
Meredith, Richard	Ashley.	"
Millar, John Andrew	City of Dunedin.	"
Mills, Hon. Charles Houghton ..	Wairau.	"
Monk, Richard	Waitemata.	"
Napier, William Joseph	City of Auckland.	"
O'Meara, John	Pahiatua.	"
O'Rorke, Hon. Sir George Maurice, Kt. Bach.	Manukau.	"
Palmer, Jackson	Ohinemuri.	"
Pirani, Frederick	Palmerston.	"
Rhodes, Robert Heaton	Ellesmere.	"
Russell, George Warren	Riccarton.	"
Russell, William Russell ..	Hawke's Bay.	"
Seddon, Rt. Hon. Richard John, P.C	Westland.	"
Sidey, Thomas Kay	Caversham.	30 December, 1901.
Smith, Edward Metcalf	Taranaki.	27 December, 1899.
Smith, George John	City of Christchurch.	22 July, 1901.
Stevens, John	Manawatu.	27 December, 1899.
Steward, Hon. William Jukes ..	Waitaki.	"
Symes, Walter	Egmont.	"
Tanner, William Wilcox.. ..	Avon.	"
Thompson, Robert	Marsden	"
Thomson, James William ..	Clutha.	"
Ward, Hon. Sir Joseph George, K.C.M.G.	Awarua.	"
Wilford, Thomas Mason	Suburbs of Well'gton	"
Willis, Archibald Dudingston ..	Wanganui.	"
Witheford, Joseph Howard ..	City of Auckland.	8 May, 1900.
For Maori Electorates.		*Day of Election.*
Heke, Hone	Northern Maori.	9 January, 1901.*
Kaihau, Henare	Western Maori.	19 December, 1899.
Parata, Tame	Southern Maori.	"
Pere, Wi	Eastern Maori	"

* Writ indorsed, 31st January, 1901.

Clerk of House of Representatives—H. Otterson.
Clerk-Assistant—A. J. Rutherfurd.
Second Clerk-Assistant—A. F. Lowe.
Sergeant-at-Arms—Major T. V. Shepherd. "
Reader and Clerk of Bills and Papers—E. W. Kane.
Chief *Hansard* Reporter—Silas Spragg.
Interpreters—L. M. Grace, W. E. Goff.
Clerk of Writs—H. Pollen.
Deputy Clerk of Writs— ————.
Librarian—Charles Wilson.

OFFICIAL LIST.

(26th April, 1902.)

PREMIER'S OFFICE.

Premier—Rt. Hon. R. J. Seddon, P.C.

Secretary to Cabinet—A. J. Willis

COLONIAL SECRETARY'S DEPARTMENT.

Chief Office.

Colonial Secretary—Hon. Sir J. G. Ward, K.C.M.G.

Under-Secretary—Hugh Pollen

Chief Clerk—R. F. Lynch

Clerks—J. F. Andrews, A. R. Kennedy

Officer in Charge of Government Buildings—W. H. Hennah

Audit Office.

Controller and Auditor-General—J. K. Warburton.

Assistant Controller and Auditor—J. C. Gavin

Chief Clerk—L. C. Roskruge

Clerks—W. Dodd, H. S. Pollen, W. G. Holdsworth, E. J. A. Stevenson, C. M. Georgeson, J. H. Fowler, J. Skerrett, R. A. Gray

Cadets—C. E. Easton, G. V. Bogle

Cadette—E. A. Casey

Extra Clerks—D. C. Innes, J. Swift, A. E. Bybles, J. Ward, C. E. Briggs, E. E. Smythe, J. McC. Hamilton, T. S. Hamer, S. W. Thornton

Audit Officer, Agent-General's Office, London—C. F. W. Palliser

Audit Inspectors—P. P. Webb, A. H. Maclean, J. King, A. W. Eames, G. H. I. Easton, C. P. Johnson, J. T. Dumbell, H. A. Lamb, B. A. Meek, A. A. Bethune

Registrar-General's Office.

Registrar-General—E. J. Von Dadelszen

Chief Clerk and Deputy Registrar-General—G. Drury

Clerks—F. H. Machattie, W. W. Cook, Ben Keys

Index Clerk—S. Coffey

Registrars of Births, Deaths, and Marriages.

Four Chief Towns.

Auckland—E. H. Lyons

Wellington—F. W. Mansfield

Christchurch—L. C. Williams

Dunedin—W. J. Hall

Printing and Stationery Department.

Government Printer, Stationery Office Manager, and Controller of Stamp Printing—John Mackay

Superintending Overseer—J. J. Gamble

Chief Clerk and Accountant—B. B. Allen

Clerk and Computer—N. B. K. Manley

Clerks—F. Barraud, J. W. Hall, R. Watts, A. Stace, A. Williams

Cadette—A. Paterson

Hansard Supervisor—M. F. Marks

Overseers—B. Wilson, J. F. Rogers

Overseer, Jobbing-room—G. Tattle

Night Foreman—D. Archibald

Readers—W. Fuller, H. S. Mountier, H. Lee, W. Sutherland

Overseer, Machine-room—J. Phillips

Sub-overseer, Machine-room—John Burns

Overseer, Binding Branch—W. Franklin

Sub-overseer, Binding Branch—G. H. Broad

Forewoman, Binding Branch—Miss O'Malley

Stamp Printer—H. Hume

Foreman, Lithographic Branch—D. Ross

Stereotyper and Electrotyper—W. J. Kirk

Engineer—T. R. Barrer

COLONIAL TREASURER'S DEPARTMENT.

Chief Office.

Colonial Treasurer—Rt. Hon. R. J. Seddon, P.C.

Secretary to the Treasury, Receiver-General, Paymaster-General, and Registrar of New Zealand Consols—James B. Heywood

Accountant to the Treasury—Robert J. Collins
Cashier—C. E. Chittey
Corresponding Clerk—H. Blundell
Clerks—R. B. Vincent, W. E. Cooper, E. L. Mowbray, A. O. Gibbes, J. Holmes, H. N. W. Church, A. J. Morgan, T. J. Davis, F. H. Tuckey, H. Hawthorn, E. Fisher, W. Wilson, G. A. Fraser, G. C. Rodda
Cadets — W. Gillanders, J. Christie, H. W. Williams S. S. Mackenzie, W. L. Clapson, A. Hore
Cadettes — L. McIntosh, M. Ralston, D. M. Schramm, H. M. Batham, E. M. Taylor, E. S. Watts, E. A. C. Burrage
Officer for Payment of Imperial Pensions at Auckland—B. J. Daveney

FRIENDLY SOCIETIES' AND TRADE UNIONS' REGISTRY OFFICE.
Registrar—E. Mason
Revising Barrister—L. G. Reid
Clerk—C. T. Benzoni

OLD-AGE PENSIONS OFFICE.
Registrar—J. Eman Smith
Deputy Registrars—
Auckland—John King, Registrar of Electors
Wellington—F. W. Mansfield, Registrar of Births, &c.
Christchurch—L. C. Williams, Registrar of Electors
Dunedin—Robert Hill
(In all other Pension Districts Clerks of the Magistrates' Courts are the Deputy Registrars)

LAND AND INCOME TAX DEPARTMENT.

Commissioner—John McGowan
Deputy Commissioner—G. F. C. Campbell
Chief Clerk—F. J. M. D. Walmsley
Accountant—P. Heyes
Clerks—A. J. McGowan, H. Nancarrow, J. M. King, W. M. Tyers, J. W. Black, C. V. Kreeft, G. W. Jänisch, D. R. Purdie, D. G. Clark, J. Stevenson, E. Randell, R. Hepworth, S. Ruddock, J. Ferguson, H. S. Barron
Cadets—C. E. J. Dowland, H. A. Anderson, C. J. Lovatt, J. M. Park

DEPARTMENT OF JUSTICE.

HEAD OFFICE.
Minister of Justice — Hon. James McGowan
Under-Secretary—F. Waldegrave
Chief Clerk—C. B. Jordan
Translator—G. H. Davies
Clerks—C. E. Matthews, G. F. Dixon, A. J. Thompson

CROWN LAW OFFICE.
Attorney-General—(vacant)
Solicitor-General — F. Fitchett, M.A., LL.D.
Assistant Law Officer—L. G. Reid
Law Draftsman—
Clerk—E. Y. Redward

PATENT OFFICE.
Registrar of Patents, Designs, and Trade-marks—F. Waldegrave
Deputy Registrar—J. C. Lewis
Clerk—Mary Eyre

JUDICIAL.

Supreme Court Judges.

Chief Justice—
Wellington—Sir R. Stout, K.C.M.G.
Judges—
Wellington—W. B. Edwards, Theo. Cooper
Auckland—E. T. Conolly
Christchurch—J. E Denniston
Dunedin—J. S. Williams

District Court Judges.

Wairarapa, Wanganui, New Plymouth, Hawera, and Palmerston North—C. C. Kettle
Nelson—H. W. Robinson
Ashburton, Timaru, Oamaru, Queenstown, Naseby, Lawrence, Invercargill, Hokitika, Greymouth, Westport, Reefton, and Kumara—C. D. R. Ward

Registrars of the Supreme Court.

Auckland—H. C. Brewer
New Plymouth—R. L. Stanford
Wanganui—C. C. Kettle
Napier—A. Turnbull
Gisborne—W. A. Barton
Wellington—D. G. A. Cooper
Nelson—H. W. Robinson
Blenheim—A. McArthur
Christchurch—A. R. Bloxam
Hokitika—V. G. Day
Dunedin—G. A. King
Invercargill—J. R. Colyer

Sheriffs.

Auckland—H. C. Brewer
Taranaki—A. H. Holmes
Hawke's Bay—A. Turnbull

Poverty Bay—W. A. Barton
Wellington—D. G. A. Cooper
Wairarapa—E Rawson
Wanganui and Rangitikei—C. A. Barton
Nelson—W. Heaps
Westland North—E. C. Kelling
Central Westland—A. Askenbeck
Marlborough—J. Terry
Canterbury—A. R. Bloxam
Timaru—C. A. Wray
Westland—V. G. Day
Otago—G. A. King
Southland—J. R. Colyer

Crown Solicitors.

Auckland—Hon. J. A. Tole
New Plymouth—A. Standish
Gisborne—J. W. Nolan
Napier—A. J. Cotterill
Wellington—H. Gully
Wanganui—S. T. Fitzherbert
Nelson—C. Y. Fell
Blenheim—R. McCallum
Christchurch—T. W. Stringer
Timaru—J. W. White
Dunedin—J. F. M. Fraser
Invercargill—T. M. Macdonald
Oamaru—A. G. Creagh

Crown Prosecutors (District Courts).

New Plymouth—A. Standish
Hawera—E. L. Barton
Wanganui and Palmerston North—S. T. Fitzherbert
Masterton—A. R. Bunny
Nelson—C. Y. Fell
Westport and Reefton—C. E. Harden
Hokitika—J. Park
Greymouth—M. Hannan
Timaru—J. W. White
Oamaru—A. G. Creagh
Queenstown—Wesley Turton
Invercargill—T. M. Macdonald

Stipendiary Magistrates.

Auckland—H. W. Brabant
Pokeno, Waikato, &c.—H. W. Northcroft
Onehunga, &c.—T. Hutchison*
Russell, &c.—E. C. Blomfield
Tauranga, &c.—J. M. Roberts*
Thames, &c.—R. S. Bush*
Gisborne, &c.—W. A. Barton
New Plymouth—R. L. Stanford
Hawera, &c.—H. Eyre-Kenny
Wanganui, &c.—C. C. Kettle
Palmerston North, &c.—A. Greenfield
Wellington, &c.—W. R. Haselden
Wairarapa, &c.—W. P. James
Napier &c.—A. Turnbull
Nelson—H. W. Robinson*
Motueka, Collingwood, &c. — Wilson Heaps*
Blenheim, &c.—A. McArthur*
Christchurch, &c.—R. Beetham
Kaiapoi, &c.—H. W Bishop
Timaru, &c.—C. A. Wray
Greymouth, Westport, &c. — R. S. Hawkins*
Hokitika, &c.—D. Macfarlane*
Dunedin, &c.—E. H. Carew* and C. C. Graham
Oamaru, &c.—J. Keddell*
Milton, &c.—G. Cruickshank*
Clyde, &c.—F. J. Burgess*
Naseby—J. McEnnis*
Invercargill, &c.—S. E. McCarthy*
Chatham Islands—R. S. Florance

Official Assignees in Bankruptcy.

Auckland—J. Lawson, J.P.
Wellington—J. Ashcroft, J.P.
Christchurch—G. L. Greenwood
Dunedin—C. C. Graham, S.M.

Clerks of District and Magistrates' Courts.

New Plymouth—A. H. Holmes
Hawera—A. Trimble
Wanganui—C. A. Barton
Palmerston North—W. Matravers
Masterton—E. Rawson
Nelson—C. H Webb-Bowen
Hokitika—W. A. D. Banks
Kumara—T. M. Lawlor
Greymouth—B. Harper
Westport—E. C. Kelling
Reefton—A. Askenbeck
Timaru—T. Howley
Ashburton—T. W. Tayler
Oamaru—R. P. Ward
Invercargill—J. R. Colyer
Queenstown—A. A. Mair
Lawrence—A. M. Eyes
Naseby—F. Hart

Receivers of Gold Revenue, Mining Registrars, and Clerks of Wardens' and Magistrates' Courts.

Thames—J. Jordan
Coromandel—D. Banks
Paeroa—H. R. Bush
Waihi—E. W. Cave
Tauranga—W. A. Thom

* Are also Wardens of Goldfields.

Whangarei—G. M. Robertshaw
Havelock (Marlborough)—H. McArdle
Nelson—C. H. Webb-Bowen
Blenheim—John Terry
Motueka—H. E. Gilbert
Collingwood—W. Seale
Westport—E. C. Kelling
Charleston—T. A. Godfrey
Reefton—A. Askenbeck
Ahaura—J. C. Malfroy
Greymouth—B. Harper
Kumara—T. M. Lawlor
Hokitika—W. A. D. Banks
Naseby, &c.—F. Hart
Wyndham—D. Bogue
Clyde, Black's, and Alexandra—F. T. D. Jeffrey
Cromwell—J. Fleming
Queenstown and Arrowtown—A. A. Mair
Lawrence—A. M. Eyes
Gore—M. Foley
Riverton—A. G. Ashby

Clerks of Magistrates' Courts.

Auckland—H. G. Ralfe
Gisborne—G. J. Johnstone
Hamilton—T. Kirk
Napier—R. B. Mathias
Hastings—P. Skerrett
Stratford—J. B. Stoney
Dannevirke—S. Tansley
Marton, &c.—F. M. Deighton
Wellington—A. D. Thomson
Christchurch—W. Martin
Lyttelton—W. Shanaghan
Kaiapoi—M. Lynskey
Waimate—W. Y. Purchase
Dunedin—W. G. P. O'Callaghan

NATIVE LAND COURT.

Chief Judge—G. B. Davy
Judges—A. Mackay, D. Scannell, H. W. Brabant, W. J. Butler, H. F. Edger, W. G. Mair, H. D. Johnson, J. M. Batham
Registrars—Auckland, J. W. Browne; Gisborne, J. Brooking; Wellington, R. C. Sim

Commissioners of the Native Land Court.

R. S. Bush, A. Turnbull, E. C. Blomfield, C. C. Kettle, J. M. Roberts, W. Stuart, H. W. Bishop, E. H. Carew, H. E. Kenny, R. L. Stanford, T. Hutchison, H. W. Robinson, R. S. Florance: Sub-Commissioners—J. Brooking, W. A. Thom
Government Native Agent, Otorohanga—G. T. Wilkinson

VALIDATION COURT.

Chief Judge—G. B. Davy
Judges—The Judges of the Native Land Court
Registrars—The Registrars of the Native Land Court

CORONERS.

Coroners—Auckland, E. Baker, T. Gresham; Coromandel, A. R. H. Swindley; Collingwood, E. Davidson; Foxton, E. S. Thynne; Hamilton, J. S. Bond; Hawera, C. E. Major; Hokitika, R. W. Wade; Marton, A. Ross; Ohaeawai, Ohiwa, S Bates; Otahuhu, S. Luke; Otaki W. H Simcox; Paeroa, W. Forrest; Pahi, J. B. Ariell; Palmerston North, J. Mowlem; Port Albert, L. P. Becroft; Queenstown, L. Hotop; Raglan, W. H. Wallis; Midhirst, J. Mackay; Takaka, A. Sinclair; Thames, A. Bruce; Tauranga, A. C. H. Tovey; Te Awamutu, J. B. Teasdale; Te Kopuru, T. Webb; Waipawa, S Johnson; Wellington, J. Ashcroft; Whangarei, J. M Killen; Woodville, E. J. Gothard. All Stipendiary Magistrates are *ex officio* Coroners.

NEW ZEALAND POLICE FORCE.

Head Office.

Commissioner—John Bennett Tunbridge
Chief Clerk—John Evans
Clerks—John Tasker, William John Mahoney, Walter Gollan

Police Department.

Inspectors—Peter Pender, William Stone Pardy, John Cullen, John Wybrant Ellison, Robert James Gillies, Terence O'Brien, Ewen Macdonell
Sub-Inspectors—Nicholas Kiely, Edward Wilson, Alfred James Mitchell, Patrick Black, Henry Green

PRISONS DEPARTMENT.

Inspector—Lieut.-Colonel Arthur Hume, N.Z.M.
Clerk—T. E. Richardson
Gaolers—Auckland, Francis Egerton Severne, Dunedin, Samuel Charles Phillips; Hokitika, Thomas Rosson Pointon, Invercargill, John Henry Bratby; Lyttelton, Matthew Michael Cleary; Napier, Michael Flannery; New Plymouth, Bartholomew Lloyd O'Brien; Wanganui, Robert T. N. Beasley; Wellington, Patrick Samuel Garvey

DEPARTMENT OF INDUSTRIES AND COMMERCE.

Minister—Hon Sir J. G. Ward, K.C.M.G.
Secretary—T. E. Donne
Chief Clerk—G. S. Munro.

DEPARTMENT OF TOURIST AND HEALTH RESORTS.

Minister—Hon. Sir J G. Ward, K.C.M.G.
Superintendent—T. E. Donne
Chief Clerk—C. R. C. Robieson
Inspector—F. Moorhouse
Clerks—H. Kirk, H. R. Robinson
Shorthand and Typist—S. Dimant

DEPARTMENT OF LABOUR.

Minister of Labour—Rt. Hon. R. J. Seddon, P.C.
Secretary for Labour and Chief Inspector of Factories—E. Tregear
Chief Clerk and Deputy Chief Inspector of Factories—James Mackay
Clerks—F. Rowley, F. A. de la Mare
Shorthand Writer and Typist—J. W. Collins
Cadet—W. Linklater

Inspectors of Factories.

North Island—J. Shanaghan, H. Ferguson, L. D. Browett, W. J. Blake, W. H. Hagger, Margaret Hawthorne, and 71 local Inspectors
South Island—J. Shanaghan, J. Lomas, H. Maxwell, J. B. Lindsay, W. H. Hagger, Margaret Hawthorne, and 68 local Inspectors
(There are also 200 Bureau Agents in different parts of the colony.)

PUBLIC WORKS DEPARTMENT.

Head Office.

Minister for Public Works—Hon. W. Hall-Jones
Under-Secretary—H. J. H. Blow
Engineer-in-Chief—W. H. Hales
Superintending Engineer—P. S. Hay, M.A., M.Inst.C.E.
Inspecting Engineer—R. W. Holmes, M.Inst.C.E.
Chief Clerk—W. D. Dumbell
Accountant—G. J. Clapham
Land-purchase Officer—H. Thompson
Record Clerk—H. W. H. Millais
Clerks—P. S. Waldie, E. McCarthy, A. Biddell, E. Bold, A. H. Kimbell, N. Jacobs, H. F. Curtis, A. Sampson, C. E. Crawford, P. J. Garvey, G. C. Schmidt, W. McNamara, J. J. Bennett, A. L. Goldfinch, L. White, E. Kidd, K. Webb
Chief Draughtsman—W. G. Rutherford
Architect—J. Campbell
Draughtsmen—T. Perham, E. Jackson, C. A. Lawrence, W. Withers, W. G. C. Swan, J. H. Price, A. E. King, R. G. Applegarth, G. W. Phillips, J. Baird, A. A. Nicholson, C. A. Owen, J. J. Fraser, A. F. Macrae, F. I. Ellis, S. T. Silver, A. T. Ford
Head Storekeeper—John Young
Engineering Cadets—J. McNair, J. Norris
Clerical Cadets—A. D. Park, G. C. Perry
Clerical Cadette—E. M. B. Lynch

District Offices.

District Engineers—Auckland, C. R. Vickerman; Dunedin, E. R. Ussher, M.Inst.C.E.
Resident Engineers—Hunterville, G. L. Cook, M.Inst.C.E.; North Island Main Trunk Railway, J. A. Wilson, J. D. Louch; Nelson, W. A. Shain; Westport, R. A. Young, Assoc.M.Inst.C.E.; Greymouth, J. Thomson, B.E.; Springfield, W. H. Gavin
Assistant Engineers—J. J. Hay, M.A.; J. S. Stewart, S. J. Harding, J. H. Dobson, F. M. Hewson, J. Hannah, J. H. Lewis, A. Jack, G. C. McGlashan, F. H. Geisow, C. E. Armstrong, W. Widdowson, H. Dickson, J. W. E. McEnnis, A. Ross, J. V. Haskell, J. W. Thomson, F. W. Furkert, J. Meenan, W. P. Moynihan, A. Stewart, W. A. Jeff, W. Sherratt, C. J. McKenzie, F. P. Bartley
Engineering Cadets—J. J. Wilson, H. Vickerman, F. S. Dyson, J. Wood, L. B. Campbell
Draughtsmen—C. Wood, W. A. Cumming, P. F. M. Burrows, W. H. Hislop, T. J. McCosker, L. L. Richards, J. B. Robertson, H. C. W. Wrigg, W. G. Harding
Clerks—W. Black, C. T. Rushbrook, A. R. Stone, A. J. Sutcliffe, E. Waddell, J. H. Denton, J. B. Borton, L. P. Cabot, F. E. Banks, H. Grave, G. T. Grace, E. G. Beale, E. Crouch, J. A. White, W. E. Fitzgerald, L. M. Shera, H. M. O'Donnell, S. A. Holland, H. J. C. Patrick
Storekeepers—T. Douglas, J. C. Fulton, S. J. Moncrieff

RAILWAYS DEPARTMENT.

Minister for Railways—Hon. Sir J. G. Ward, K.C.M.G.

General Manager—T. Ronayne

Chief Clerk—R. W. McVilly

Clerks—E. J. Andrews, B. M. Wilson, W. S. Ridler, J. L. Day, W. Johnston, J. Hislop, C. G. Edwards, W. H. Gifford, A. J. Will, J. R. de Lambert, W. A. Wellings, P. J. McGovern, W. H. Warren, A. N. Longton, S. S. Millington, G. L. Sentch, W. H. B. Donovan, C. T. Reehal, H. Gerard.

Audit Inspectors—H. Baxter, D. Munro, R. Hislop, jun.

Railway Accountant—A. C. Fife

Clerks—H. Davidson, J. H. Davies, G. G. Wilson, S. P. Curtis, J. McLean, E. Davy, A. Morris, C. Batten, T. Pattle, W. B. Fisher, J. Firth, E. J. Fleming, H. H. Leopard, R. J. Loe, W. Bourke, A. J. Belworthy, F. W. Lash, A. H. Hunt, W. E. Ahern, F. K Porteous, T. A. O'Connor, J. W. Dayman, W. H. Simmons, J. B. Gauntlett, J. Underhill.

Stores Manager—G. Felton

Stores Audit Inspector—F. J. Dawes

Clerks—M. C. Rowe, G. H. Norie, C. F. F. A. R. Isherwood, G. Bennett, S. Alpe, H. W. Barbor, E. J. Maguiness, R. P. Bray, J. T. Bain, L. G. Porter, L. B. Archibald, E. J. Scanlan, S. J. H. Dyer, J. R. Robertson, A. D. Lincoln, J. Kerr, J. Brabiner, J. Hayes, J. Ginnane, E. Goldfinch

Chief Traffic Manager—W. H. Gaw

Clerks—J. E. Armstrong, G. A. C. Robieson, J. E. Widdop, G. Murchie, F. C. Fraser, T. T. Halbert.

Traffic Superintendents—Wellington, T. Arthur; Dunedin, A. Grant

District Managers—Whangarei, E. E. Gillon; Auckland, H. Buxton; Wanganui, S. F. Whitcombe; Westland, W. Crombie; Christchurch, T. W. Waite; Invercargill, C. A. Piper

Stationmasters in charge—Kawakawa, J. T. Parsons; Kaihu, R. B. Peat; Westport, T. Hay-Mackenzie; Nelson, E. G. Wilson; Picton, T. S. Edwards

Chief Engineer for Working Railways—J. Coom, M.Inst.C.E.

Inspecting Engineer—J. Burnett, M.Inst. C.E.

Signal Engineer—H.J.Wynne, A M.Inst. C.E.

Railway Land Officer—E. G. H. Mainwaring

Chief Draughtsman—G. A. Troup

Draughtsmen—J. Besant, W. R. B. Bagge, C. T. Jeffreys, Ad. Howitt, L. Reynolds, A. S. Henderson, W. W. Fry, W. R. Davidson, A. L. Baumgart, A. S. Wansbrough

Clerks—W. P. Hicks, J. T. Ford, W. A. Mirams, H. Jessup, T. H. Wilson, E. S. Kelly, H. W. Rowden, T. M. Lucy, H. H. Gardner, J. M. Robb, F. J. Rowden, E. D. Richards, G. P. Parrell, E. J. Guthrie, T. Trezise, H. McAlister, G. G. Wilson, jun., J. A. F. Cundy, V. W. W. Venimore, F. T. A. Williams

District Engineers—Auckland, C. H. Biss; Wanganui, D. T. McIntosh; Wellington, A. C. Koch; Westport and Westland, F. J. Jones; Christchurch, H. Macandrew; Dunedin, F. W. MacLean; Invercargill, A. J. McCredie

Chief Mechanical Engineer—A.L. Beattie

Clerks—J. P. Kelly, R. Aekins, D. D. Weir, J. Rumgay, H. McKeowen, H. B. Sturmer, C. L. Pettit, A. Beaton, E. Hagenson, E. J. Flowerday, A. A. B. Boult, J. H. Leopard, J. P. McKeowen, R. M. Walker, W. Somerville

Chief Draughtsman—G. A. Pearson

Draughtsmen—R. Pye-Smith, G. Wilson, A. Smellie, J. M. Porteous

Boiler Inspector—J. W. Nichols

Locomotive Engineers—Auckland, A. V. Macdonald; Wellington-Napier-New Plymouth, T. A. Peterkin; Hurunui-Bluff, H. H. Jackson; Westport and Westland, G. E. Richardson. Relieving, J. D. Harris, F. T. Murison.

Brake Engineer—J. H. Fox

Board of Appeal.

North Island.

H. Eyre Kenny, Stipendiary Magistrate, Chairman, appointed by the Governor.

H. Davidson, Railway Accountant's Office, elected.

T. Wilson, Engineman, elected

M. J. Mack, Guard, elected

W. Austin, Leading Carpenter, elected

W. Morrison, Ganger, elected

Middle Island.

C. D. R. Ward, District Judge, Chairman, appointed by the Governor.

T. W. Brebner, Stationmaster, elected.

P. E. Nolan, Signalman, elected.
J. A. McCullough, Leading Tinsmith, elected
T. Milror, Engineman, elected
R. Duncan, Sub-ganger, elected

POST AND TELEGRAPH DEPARTMENT.

General Post Office.

Postmaster-General and Electric Telegraph Commissioner—Hon. Sir J. G. Ward, K.C.M.G.
Secretary—W. Gray
Superintendent of Electric Lines—J. K. Logan
Assistant Secretary and Inspector—T. Rose
Controller of Money-orders and Savings-banks, and Accountant—G. Gray
Chief Clerk—D. Robertson
Assistant Controller Money-Orders and Savings-Banks, and Assistant Accountant—W. R. Morris
Clerks, Secretary's Office—F. V. Waters, H. Plimmer, J. C. Williamson, W. Crow, B. C. Dean, V. J. Brogan, D. E. Lindsay, H. D. Grocott, J. C. Redmond, A. T. Markmann, W. J. Gow, F. W. Furby, J. B. Jordan, S. Macalister, J. P. P. Clouston, A. Donovan
Mail Agent—W. Isbister
Clerks, Inspector's Branch—G. V. Hudson, J. Brennan, W. A. Tanner, F. S. Robins, S. M. Harrison, A. S. Harper, H. McGill
Clerks, Accountant's Branch—J. L. H. Ledger, H. A. R. Huggins, G. W. Moorhouse, W. Callaghan, W. Chegwidden, R. J. Thompson, H. Cornwall, F. Perrin, J. J. Esson, R. E. Hayes, D. A. Jenkins, E. Fitzsimons, H. N. McLeod, J. D. Avery, C. B. Harton W. J. Drake, C. Dempsey, J. G Roache, J. Coyle, F. W. Faber, F. J Beamish, P. J. Kelleher, A. C. Elliot G. H. Harris, H. C. Milne, C. W. J. Panting, H. C. Hickson, P. D. Hoskins, W. R. Wakelin, F. Stewart, T. W. West, G. G. Rose, G. T. Withers, H. E. Combs, J. E Hull, A. Marshall, F. G. A. Eagles, C. G Collins, T. M. Highet, E. C. Gamble, J C. A. Dudley, T. H. N. Beasley, G. H. Davis, W. I Dawson, W. K. Frethey, J. Snell, W. Gilbert, G. L. Messenger, R. W. Penfold, W. A. Smith, R. H. Twose, E. White, C. Gamble, J. Madden, J. Alexander, E. Bermingham, S. Brock, E. Harris, B. M. Kenny, V. Johnston, M. A. MacLeod, C. Smith, M. A. Asquith, E. O'Leary, E. E. Warren
Electrician and Inspector—W. S. Furby
Assistant Electrician—T. Buckley
Mechanicians—R. Heinitz, F. Palmer
Storekeeper—J. Black
Assistant Storekeeper—C. B. Mann
Clerks in Store—C. Nicholls, T. Palmer, W. H. Carter, M. McGilvray, J. G. Howard

Chief Postmasters.

Auckland—S. B. Biss
*Thames—S. P. Stevens
*Gisborne—G. W. Sampson
Napier—D. Cumming
*New Plymouth—F. D. Holdsworth
*Wanganui—J. F. McBeth
Wellington—S. J. Jago
*Blenheim—J. Bull
*Nelson—H. Calders
*Westport—T. T. King
*Greymouth—C. J. Berry
*Hokitika—J. H. Sheath
Christchurch—R. Kirton
*Timaru—J. A. Hutton
*Oamaru—W. W. Beswick
Dunedin—E. Cook
*Invercargill—J. W. Wilkin

Inspectors of Telegraphs.

Auckland—W. G. Meddings
Christchurch—J. W. Gannaway
Dunedin—J. Orchiston
Nelson—C. C. Robertson

Assistant Inspectors of Post-offices.

D. Miller (Northern District), W. St. G. Douglas (Midland District), C. J. A. H. Tipping (Southern District)

Officers in Charge of Telegraph Offices.

Auckland—H. F. Seager
Napier—B. H. Keys
Wellington—H. W. Harrington
Christchurch—J. W. Mason
Dunedin—J. G. Ballard

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*Combined post- and telegraph-offices.

BOARD OF APPEAL.

J. McGowan, Commissioner of Taxes, Chairman (by Act).
J. K. Logan, Superintendent of Electric Lines (by Act).
J. H. Stevens, Representing Postal Branch, elected.
H. G. Greatbatch, Representing Telegraph Branch, elected.

DEPARTMENT OF TRADE AND CUSTOMS.

Commissioner of Trade and Customs—Hon. C. H. Mills
Secretary and Inspector of Customs and Secretary of Marine—W. T. Glasgow.
Chief Clerk—T. Larchin
Clerks, Customs—V. R. Meredith, C. H. Manson
Cadets—E. W. Thompson, W. A. Cameron
Audit—H. W. Brewer, H. Crowther (Writer)

COLLECTORS OF CUSTOMS.

Auckland—A. Rose
Poverty Bay—W. J. Hawley
New Plymouth—H. Bedford
Napier—E. R. C. Bowen
Wellington—D. Johnston
Wanganui—A. Elliott
Nelson—W. Heaps
Westport—H. R. Spence
Greymouth—C. Colebrook
Hokitika—W. Rose
Lyttelton and Christchurch—J. Mills
Timaru—C. S. Nixon
Oamaru—T. M. Cullen
Dunedin—C. W. S. Chamberlain
Invercargill and Bluff Harbour—A. McDowell

OFFICERS IN CHARGE OF PORTS, AND COASTWAITERS.

Thames—T. C. Bayldon, Coastwaiter
Russell—H. Stephenson, Coastwaiter
Tauranga—E. Northcroft, Officer in Charge
Whangaroa—A. G. Ratcliffe, Coastwaiter
Whangarei—J. Munro, Coastwaiter
Mongonui—A. D. Clemett, Officer in Charge
Hokianga—G. Martin, Coastwaiter
Kaipara—J. C. Smith, Officer in Charge
Waitara—J. Cameron, Coastwaiter
Foxton—T. Lewis, Officer in Charge
Patea—J. W. Glenny, Officer in Charge
Wairau—H. A. Jackman, Officer in Charge
Picton—T. W. Lecocq, Officer in Charge
Chatham Islands—R. S. Florance, Officer in Charge

MARINE DEPARTMENT.

Minister of Marine—Hon. W. Hall-Jones
Secretary—W. T. Glasgow
Chief Clerk—G. Allport
Clerks—J. J. D. Grix, G. Sinclair
Cadet—B. W. Millier
Marine Engineer for the Colony—W. H. Hales.
Nautical Adviser and Chief Examiner of Masters and Mates—H. S. Blackburne
Weather Reporter—R. A. Edwin, Com. R.N.
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Auckland—W. D. Reid
Superintendent of Mercantile Marine and Examiner of Masters and Mates—Wellington, G. G. Smith
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Lyttelton—J. A. H. Marciel
Superintendent of Mercantile Marine and Examiner of Masters and Mates, Dunedin—C. E. W. Fleming
Master of s.s. "Tutanekai"—C. F. Post
Master of s.s. "Hinemoa"—J. Bollons

INSPECTORS OF SEA-FISHERIES.

Wellington, Chief Inspector—L. F. Ayson
Russell—H. Stephenson
Whangarei—J. Munro
Hokitika—J. Duncan
Bluff—P. McGrath

HARBOURMASTERS.*

Collingwood—F. Stallard
Foxton—A. Seabury
Hokianga—G. Martin
Kaipara—J. Christy Smith
Manukau—J. Neale
Moturka—H. L. Moffatt
Picton—T. Edwards
Port Robinson—J. Sinclair
Russell—H. Stephenson
Waitapu—S. Fittall

* The more important harbours are controlled by local Boards, not by the Marine Department.

INSPECTION OF MACHINERY DEPARTMENT.

Chief Inspector of Machinery, Principal Engineer Surveyor, and Chief Examiner of Engineers—R. Duncan, Head Office, Wellington
Chief Clerk—R. P. Milne
Clerk—J. H. Macalister
Extra Clerks—R. G. Stone, W. D. Andrews, J. G. Macpherson
Cadet—H. Patterson
Inspectors of Machinery, Engineer Surveyors, and Examiners of Engineers:—
Auckland—H. Wetherilt, S. Dalrymple, G. McGregor
Wellington—H. A. McGregor, P. J. Carman, A. Calvert, W. R. Douglas
Christchurch—G. Croll, A. McVicar
Dunedin——A. Walker, M. Sharp
Invercargill—A. W. Bethune
Board of Examiners of Stationary, Traction, Locomotive, and Winding Engine Drivers—Robert Duncan, Chief Inspector of Machinery, M.Inst.Nav.A., M.Inst.Soc.A.Lond., Chairman; John Hayes, F.S.G.C., Inspecting Engineer of Mines; P. G. Hay, M.A., M.Inst.C.E.; R. P. Milne, Secretary

STAMP DEPARTMENT.

Commissioner of Stamp Duties—Hon. Jas. Carroll
Secretary for Stamps—C. A. St. G. Hickson
Chief Clerk and Accountant—H. O. Williams
Custodian and Issuer of Stamps—W. H. Shore
Record and Receiving Clerk—J. P. Murphy
Clerks—V. Willeston, J. Murray
Chief Stamper—C. Howe
Cadet—D. Hodges
Cadette—C. McIntosh

Deputy Commissioners of Stamps.

Auckland—E. Bamford
Gisborne—C. H. W. Dixon
Taranaki—R. L. Stanford
Hawke's Bay—Thos. Hall
Wellington—C. A. St. G. Hickson
Wanganui—J. F. McBeth
Nelson—W. W. de Castro
Marlborough—C. E. Nalder
Canterbury—P. G. Withers
Timaru—J. A. Hutton
Otago—P. C. Corliss
Southland—W. Wyinks
Westland—V. G. Day

LAND TRANSFER DEPARTMENT AND DEEDS REGISTRY.

Registrar-General of Land and Deeds—G. B. Davy
Secretary, Land and Deeds—C. A. St. G. Hickson

District Land Registrars and Registrars of Deeds.

Auckland—E. Bamford
Taranaki—R. L. Stanford
Wellington—Wm. Stuart
Hawke's Bay—Thos. Hall
Gisborne—J. M. Batham
Nelson—H. W. Robinson
Marlborough—C. E. Nalder
Canterbury—G. G. Bridges
Otago—H. Turton
Southland—W. Wyinks
Westland—V. G. Day

Examiners of Titles.

Auckland—E. Bamford
Taranaki—R. L. Stanford.
Wellington—Wm. Stuart, H. Howorth
Hawke's Bay—Thos. Hall
Gisborne—J. M. Batham
Nelson—H. W. Robinson
Marlborough—Wm. Stuart
Canterbury—G. G. Bridges
Otago—H. Turton
Southland—W. Wyinks
Westland—V. G. Day

Registrar of Joint-stock Companies.

C. A. St. G. Hickson

Registrars of Building Societies, Industrial and Provident Societies, and Assistant Registrars of Joint-stock Companies.

Auckland—E. Bamford
Taranaki—R. L. Stanford
Hawke's Bay—Thos. Hall
Wellington—H. O. Williams
Nelson—W. W. de Castro
Marlborough—C. E. Nalder
Canterbury—P. G. Withers
Otago—P. C. Corliss
Southland—W. Wyinks
Westland—V. G. Day
Poverty Bay—C. H. W. Dixon

EDUCATION DEPARTMENT.

Minister of Education (administering also Native schools, industrial schools, and the institution for deaf-mutes)—Hon. W. C. Walker, C.M.G.

Secretary for Education and Inspector-General of Schools—George Hogben, M.A.

Assistant Secretary—Sir E. O. Gibbes, Bart.

Clerks—F. K. de Castro, H. B. Kirk, M.A., R. H. Pope, F. L. Severne, E. C. Banks, F. D. Thomson, B.A., H. J. Barrett, T. G. Gilbert, J. Beck, I. Davey, I. Robertson, C. T. Wild, G. P. Prichard

Inspector of Native Schools—James H. Pope. Assistant Inspector—H. B. Kirk, M.A. Organizing Instructor—W. W. Bird, M.A.

Inspectors of Technical Instruction—E. C. Isaac, M. H. Browne

Assistant Inspectors of Industrial Schools—R. H. Pope, T. A. Walker

Education Boards, with Names of Secretaries.

Auckland—V. E. Rice
Taranaki—P. S Whitcombe
Wanganui—W. J. Carson
Wellington—A. Dorset
Hawke's Bay—G. T. Fannin
Marlborough—J. Smith
Nelson—S. Ellis
Grey—W. Riemenschneider
Westland—A. J. Morton, B.A.
Canterbury North—H. C. Lane
Canterbury South—J. H. Bamfield
Otago—P. G. Pryde
Southland—J. Neill

School Commissioners

(*Administrators of Education Reserves, with Names of Secretaries*).

Auckland—H. N. Garland
Taranaki—F. P. Corkill
Wellington—N. J. Tone
Hawke's Bay—E. P. A. Platford
Marlborough—J. Smith
Nelson—A. T. Jones
Westland—A. J. Morton
Canterbury—H. H. Pitman
Otago—C. Macandrew

Industrial Schools.

Government Schools.

Auckland Industrial School—Miss S. E. Jackson, Manager
Wellington Receiving Home—Mrs. E. S. Dick, Manager
Burnham Industrial School (Canterbury)—T. Archey, Manager
Te Oranga Home (Canterbury)—rs. E. T. Branting, Manager
Christchurch Receiving Home—Miss A. B. Cox, Manager
Caversham Industrial School (Otago)—G. M. Burlinson, Manager

Private Schools.

St. Mary's Industrial School, Ponsonby—Rev. G. H. Gillan, Manager
St. Joseph's Industrial School, Wellington—Rev. W. J. Lewis, Manager
St. Mary's Industrial School, Nelson—Very Rev. Dean Mahoney, Manager
St. Vincent de Paul's Industrial School, Dunedin—Right Rev. M. Vernon, Manager

Institution for Deaf-mutes, Sumner.

Director—G. van Asch
Steward—H. Buttle

LUNATIC ASYLUMS.

Inspector—Duncan MacGregor, M.A., M.B., C.M.*
Assistant Inspector—Mrs. Grace Neill
Medical Superintendent, Auckland Asylum—R. M. Beattie, M.B.
Medical Superintendent, Christchurch Asylum—E. G. Levinge, M.B.
Medical Superintendent, Porirua Asylum—Gray Hassell, M.D.
Medical Superintendent, Wellington Asylum—W. Baxter Gow, M.D.
Medical Superintendent, Seacliff Asylum—F. Truby King, M.B.
Superintendent, Hokitika Asylum—H. Gribben; Medical Officer, H. Macandrew, M.B.
Superintendent, Nelson Asylum—J. Morrison; Medical Officer, W. J. Mackie, M.D.
Ashburn Hall, Waikari (private asylum)—Proprietors, Dr. Alexander and Executor of James Hume; Medical Officer, Frank Hay, M.B.

* Also holds appointment of Inspector of Hospitals and Charitable Institutions.

MINES DEPARTMENT.

Chief Office.

Minister of Mines—Hon. James McGowan
Under-Secretary for Mines—H. J. H. Eliott
Inspecting Engineer—John Hayes
Chief Clerk—T. H. Hamer
Clerk—H. E. Radcliffe
Analyst—J. S. Maclaurin, D.Sc., F.C.S.
Geologist—Alexander McKay, F.G.S.
Assistant Geologist—W. A. McKay
Draughtsman—C. H. Pierard
Shorthand Writer—J. T. Watkins

Inspectors of Mines.

Thames and Auckland Districts—James Coutts; Assistant Inspector, Thomas Ryan: Canterbury, Dunedin, and Southland Districts—E. R. Green: Assistant Inspector, Robert McIntosh; Cadet, H. Paton: West Coast Districts—R. Tennent; Assistant Inspector—A. H. Richards

Mining Bureau.

Secretary—P. Galvin

Managers of Water-races.

Waimea-Kumara—A. Aitken
Mount Ida—R. Murray

Schools of Mines.

Lecturers and Instructors: Thames—F. B. Allen, M.A., B.Sc.; Assistant, A. H. V. Morgan, M.A.: Reefton—J. W. Lee: Coromandel—D. V. Allen: Waihi—P. G. Morgan, M.A.

Board of Examiners under "The Coal-mines Act, 1891."

The Director of the Geological Survey of New Zealand; the Surveyor-General; the Inspecting Engineer of Mines; the Chief Inspector of Machinery, Wellington; James Bishop, of Brunnerton; Alfred Benjamin Lindop, of Denniston; and (vacant)

Board of Examiners under "The Mining Act, 1891."

Same official members as above Board, excepting the Chief Inspector of Machinery, Wellington, with the following private members: H. A. Gordon; F. G. S., Auckland; Thomas Aitken Dunlop, Thames; Patrick Quirk Caples, Reefton; and Francis Hodge, Coromandel

The Director of the Geological Survey of New Zealand is Chairman of both Boards, and Mr. T. H. Hamer is the Secretary

Geological Survey, Museum, and Observatories.

Minister in Charge—The Hon. Minister of Mines
Director—Sir J. Hector, K.C.M.G., M.D., F.R.S.
Clerk, Curator, and Meteorological Observer for Wellington—R. B. Gore
Astronomical Observer—T. King
Meteorological Observer, Auckland—T. F. Cheeseman, F.L.S.
Meteorological Observer, Dunedin—H. Skey
Meteorological Observer, New Plymouth—G. W. Palmer
Meteorological Observer, Hokitika—A. D. Macfarlane
Meteorological Observer, Rotorua—Dr. Kenny
Meteorological Observer, Te Aroha—W. Hill
Meteorological Observer, Lincoln—M. Guérin
Meteorological Observer, Hanmer Plains—Miss C. Taylor

New Zealand Institute.

Manager—Sir J. Hector, K.C.M.G., M.D., F.R.S.
Hon. Treasurer—W. T. L. Travers, F.L.S.
Secretary—R. B. Gore

DEFENCE DEPARTMENT.

Minister of Defence—Rt. Hon. R. J. Seddon, P.C.
Under-Secretary—Sir A. P. Douglas, Bart. (Retired Lieutenant, R.N.), Major, N.Z.M.

Commandant of the N.Z. Forces.

Colonel James Melville Babington, H.M. General Staff (local Major-General)

Staff Officer of Artillery.

Major St. Leger Montgomery Moore, N.Z.M. (Captain R.G.A.)

Acting Staff Officer to the Commandant of the N.Z. Forces.

Major N. L. D'A. Smith, N.Z.M.

Clerk—T. F. Grey
Clerical Cadet—A. J. Baker

Commandant Military School of Instruction, Wellington.

Lieut.-Colonel Robert Haylock Owen, N.Z.M. (Captain, H.M. South Lancashire Regiment)

Defence Store Department.

Storekeeper—J. O'Sullivan
Assistant Storekeeper—H. Jerred

NEW ZEALAND PERMANENT MILITIA.

No. 1 Service Company.

Lieut.-Colonel W. B. Messenger
Captain H. C. Morrison
Captain J. E. Hume
Lieutenant H. E. Pilkington
Lieutenant W. P. Wall
Lieutenant M. M. Gardner
Lieutenant G. E. B. Mickle
Lieutenant R. O. Chesney
Lieutenant S. G. Sandle

Inspectors of Submarine Mining Establishments.

Captain J. Falconer
Captain William Coyle, late Coast Brigade, R.E.

No. 2 Service Company.

Captain J. Falconer
Captain William Coyle, late Coast Brigade, R.E.
Lieutenant F. Symon
Lieutenant R. B. Smythe

Surgeon, Permanent Militia (Wellington).

John Teare, M.B.

Surgeon, Permanent Militia (Auckland).

John A. Laing, M.D.

Surgeon, Permanent Militia (Lyttelton).

C. H. Upham, M.R.C.S.E.

Honorary Surgeon, Permanent Militia.

Patrick J. O'Neill O'Carroll, L.R.C.S.I.

Honorary Chaplain, Lyttelton Detachment Permanent Militia.

The Rev. E. E. Chambers

Honorary Chaplain, Wellington Detachment Permanent Militia.

The Rev. W. C. Waters, M.A.

Officers Commanding Militia and Volunteer Districts, and Adjutants.

Auckland — Acting Adjutant, Major James Reid, N.Z.M.
Wellington — Brevet-Colonel Stuart Newall, C.B., N.Z.M.
Canterbury — Brevet-Colonel William Holden Webb, N.Z.M., late H.M. 109th Foot
North Otago (sub-district)—V.D. Lieut.-Colonel Alfred Headland, N.Z. Vols.
Otago — Brevet-Colonel Alfred William Robin, C.B., N.Z.M.; Adjutant, Captain L. J. Joyce, N.Z.M.
Southland (sub-district) — Major John Edward Hawkins, N.Z. Vols.
Nelson (temporary)—Major George Cecil Burleigh Wolfe, N.Z.M., late Captain R.M.L.I.

DEPARTMENT OF LANDS AND SURVEY.

HEAD OFFICE.

Minister of Lands—Hon. Thomas Young Duncan
Surveyor-General and Secretary for Crown Lands—J. W. A. Marchant
Under-Secretary for Crown Lands—W. C. Kensington
Chief Draughtsman—F. W. Flanagan
Chief Clerk—F. T O'Neill
Auditor of Land Revenue—W. G. Runcie
Superintendent of Village Settlements—J. E. March

AUCKLAND DISTRICT.

Assistant Surveyor-General, Chief Surveyor, and Commissioner of Crown Lands—G. J. Mueller
District Surveyors—L. Cussen, J. Baber, jun., G. A. Martin, H. D. M. Haszard, T. K. Thompson
Assistant Surveyors—R. S. Galbraith, D. A. D. Barron, H. F. Edgecumbe, H. T. Mitchell
Chief Draughtsman—C. R. Pollen
Receiver of Land Revenue — T. M. Taylor

HAWKE'S BAY DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—E. C. Gold Smith
District Land Officer, Gisborne, F. S. Smith
District Surveyors—F. S. Smith, James Hay, P. A. Dalziel
Assistant Surveyor—T. Brook
Chief Draughtsman—F. Simpson
Receiver of Land Revenue—F. Bull

TARANAKI DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—J. Mackenzie
District Surveyors—H. M. Skeet, G. H. Bullard
Assistant-Surveyors—J. F. Frith, W. T. Morpeth, R. W. Watson
Chief Draughtsman—J. Langmuir
Receiver of Land Revenue—G. P. Doile

WELLINGTON DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—J. Strauchon
District Surveyors—J. D. Climie, F. A. Thompson, H. J. Lowe, W. J. Wheeler, J. McKay
Assistant Surveyor—J. R. Strachan
Chief Draughtsman—L. Smith
Receiver of Land Revenue—T. G. Waitt

NELSON DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—W G. Murray
District Surveyors—J. A. Montgomerie, J. Snodgrass, R. T. Sadd
Assistant Surveyors—J. D. Thomson, E. C. Robinson, A. G. Muir, W. C. McAlister
Chief Draughtsman and Receiver of Land Revenue—H. Trent

MARLBOROUGH DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—C. W. Adams
District Surveyor—D. W. Gillies
Assistant Surveyor—E. W. Buckeridge, H. Maitland
Chief Draughtsman and Receiver of Land Revenue—W. Armstrong

WESTLAND DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—G. J. Roberts
Assistant Surveyor—W. Wilson
Chief Draughtsman—T. M. Grant
Receiver of Land Revenue—A. D. A. Macfarlane

CANTERBURY DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—T. Humphries
District Surveyors—T. N. Broderick, G. H. M. McClure, L. O. Mathias
Chief Draughtsman—C. B. Shanks
Receiver of Land Revenue—A. A. McNab

OTAGO DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—David Barron
District Surveyors—E. H. Wilmot, D. M. Calder, W. T. Neill
Chief Draughtsman—S. Thompson
Receiver of Land Revenue—G. A. Reade

SOUTHLAND DISTRICT.

Chief Surveyor and Commissioner of Crown Lands—John Hay
Assistant Surveyor—A. Hodgkinson
Chief Draughtsman—G. Robinson
Receiver of Land Revenue—H. L. Welch

MEMBERS OF LAND BOARDS.

Auckland—G. J. Mueller, R. Thompson, D. Lundon, J. Renshaw
Hawke's Bay—E. C. Gold Smith, C. Hall, T. Hyde, R. R. Groom, G. Mathewson
Taranaki—J. Mackenzie, J. Heslop, James Rattenbury, J. B. Connett
Wellington—J. Strauchon, A. W. Hogg, A. Reese
Nelson—W. G. Murray, John Graham, D. Bate, J. Marshall, O. Lynch
Marlborough—C. W. Adams, J. Redwood, A. P. Seymour, J. Duncan, F. Parsons
Westland—G. J. Roberts, A. Matheson, J. Chesney, J. S. Lang, A. Cumming
Canterbury—T. Humphries, A. C. Pringle, J. McLachlan, J. Sealy
Otago—D. Barron, H. H. Kirkpatrick, H. Clark, J. Duncan, W. Dallas
Southland—J. Hay, A. Kinross, J. McIntyre, A. Baldey, D. King

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DEPARTMENT OF ROADS.

HEAD OFFICE.

Minister in Charge—Hon. T. Y. Duncan
Chief Engineer of Roads—C. W. Hursthouse
Chief Clerk—W. S. Short
Chief Accountant—H. J. Knowles

District Officers.

Road Surveyors—Auckland, A. B. Wright; Te Kuiti, T. Burd; Rotorua, A. C. Turner; Hawke's Bay, D. N. McMillan; Taranaki, G. T. Murray; Wanganui, R. H. Reaney; Wellington, G. F. Robinson; Marlborough, C. H. Williams; Canterbury, F. Wither; Otago, W. D. R. McCurdie; Southland, N. L. Falkiner

"THE LAND FOR SETTLEMENTS ACT, 1894."

Board of Land Purchase Commissioners.

Chairman of Board and Land Purchase Inspector—Alexander Barron.

The Board consists of the Land Purchase Inspector as Chairman, the Surveyor-General, the Commissioner of Taxes—these for the whole colony—with the Commissioners of Crown Lands and a member of the Land Board in each land district, who are members only for the business arising within their respective districts.

DEPARTMENT OF AGRICULTURE.

Minister in Charge—Hon. T. Y. Duncan

Head Office.

Secretary of Agriculture and Chief Inspector of Stock—John D. Ritchie
Chief Clerk—Richard Evatt
Compiler of Statistics—E. B. Burdekin
Clerks—Correspondence branch: F. S. Pope, J. Longton, R. W. Atkinson, D. Sinclair, A. McTaggart, T. D. H. Hall, T. Kennedy. Accountant's Branch—J. E. D. Spicer, A. Calcott, F. C. Hjorring, T. R. Walton, A. E. Rowden, E. Fitzgibbon

London Office.

Produce Commissioner, London—H. C. Cameron

Veterinary Division.

Chief Veterinary Surgeon—J. A. Gilruth, M.R.C.V.S.
Assistant Chief Veterinarian—C. J. Reakes, M.R.C.V.S.
Laboratory Assistant—G. H. Barker
Veterinarians (Ms.R.C.V.S.)—H. C. Wilkie (F.R.C.V.S.), A. R. Young, T. M. Edgar, J. Lyons, J. Douglas, J. Brand (F.R.C.V.S.), S. Burton
Meat Inspectors and Veterinarians (Ms.R.C.V.S.)—J. G. Clayton, A. Crabb, D. H. Rait, C. R. Neale, J. R. Charlton, T. G. Lilico, J. A. R. Towers, A. McL. Paterson, D. Machattie, H. A. Reid, J. Kerrigan, V. A. Bankes, J. Nuttall, F. C. Robertson, W. H. Hawthorn, W. G. Taylor, W. D. Snowball, A. W. Barnes, J. McKie, T. Cunningham
Meat Inspectors—H. S. S. Kyle, H. Marsack, F. Beattie, W. A. P. Sutton

Dairy Division.

Dairy Commissioner—J. A. Kinsella
Dairy Instructors—D. J. McGowan, D. Cuddie, W. M. Singleton
Dairy Produce Graders—A. A. Thornton, J. Johnston, E. Townshend, D. Dickie, A. G. Shirley, S. A. Dumbleton, T. C. Brash

Biological and Horticultural Division.

Biologist—T. W. Kirk, F.L.S.
Assistant Entomologist—Auckland, Captain T. Broun, F.E.S.
Pomologists—North Island, W. J. Palmer, S. I. Fitch, W. A. Boucher. South Island, J. C. Blackmore
Fruit Inspectors—Auckland, Captain T. Broun, F.E.S.; Wellington, H. Palethorpe; Christchurch, A. C. Smale; Dunedin, A. F. Cargill

Chemical Division.

Chemist—B. C. Aston, F.C.S.
Laboratory Assistant—G. Williams

Poultry Division.

Poultry Expert—D. D. Hyde
Poultry Graders—Auckland, R. W. Pounsford; Wellington, W. Blowers; Christchurch, S. Newton; Dunedin, T. F. Leihy
Poultry-station Attendants—Ruakura, C. Cussen; Momohaki, H. C. Collett; Burnham, W. S. McRae; Milton, J. W. Stewart

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Hemp Graders—Auckland, W. H. O. Johnston; Wellington, C. J. Fulton
Dairy Inspectors—Auckland, G. M. Williamson; Paeroa, F. Beattie; Thames, W. A. P. Sutton, Wellington, P. Thomson; Christchurch, A. Macpherson; Dunedin, J. G. Parker
Overseers of Experimental Farms—Wairangi, N. Kensington; Ruakura, M. Mulcahy; Momohaki, F. Gillanders; Weraroa, G. Ross
Caretakers, Quarantine-stations—Auckland, A. Dickson; Wellington, J. P. Ross; Lyttelton, W. J. Thomas

INSPECTORS OF STOCK.

(Also Registrars of Brands and Inspectors under the Slaughtering and Inspection, Dairy Industry, and Noxious Weeds Acts)

Auckland District—Auckland, E. Clifton (in charge), F. H. Brittain; Ohaeawai, D. A. Graham; Whangarei, J. T. Stone; Hamilton, D. Ross; Kihikihi, J. Kerr; Tauranga, H. E. Collett

Hawke's Bay District—Napier, W. Miller (in charge); Gisborne, C. Thomson and D. Fleming; Wairoa, W. R. Rutherfurd; Hastings, F. G. Wayne; Woodville, J. Harvey,

Wairarapa District—Masterton, G. H. Jenkinson (in charge); Carterton, T. C. Webb

Wellington District — Wellington, J. Drummond (office and port), D. Munro

Manawatu District—Palmerston North, J. Duncan (in charge)

West Coast (North Island) District—Wanganui, A. K. Blundell (in charge); Hunterville, V. A. Huddleston; Hawera, J. W. Deem; Stratford, J. Budge; New Plymouth, R. Rowan

Marlborough District — Blenheim, J. Moore

Canterbury District—Christchurch, R. F. Holderness (in charge), and E. A. Dowden (office); Rotherham, J. C. Huddleston; Rangiora, C. A. Cunningham; Ashburton, B. Fullarton; Timaru, E. A. Field

Southern District — Dunedin, T. A. Fraser, Assistant Chief Inspector (in charge) and J. E. Thomson (office and port); Fairlie, W. Black; Kurow, W. Wills; Oamaru, J. C. Miller; Palmerston South, H. Hill; Mosgiel, A. Ironside; Naseby, R. I. Gossage; Clyde, G. McLeod; Lawrence, A. Mills; Milton, R. Wright; Balclutha, J. L. Bruce; Gore, W. Dalgliesh; Invercargill, H. T. G. Turner; Bluff, J. W. Raymond (port); Riverton, T. Gilmour; Queenstown, ——

Westland District—Hokitika, C. C. Empson (in charge)

Nelson District — Nelson, H. McN. Campbell (in charge); Richmond, G. S. Cooke

VALUATION DEPARTMENT.

Valuer-General—John McGowan
Deputy Valuer-General—G. F. C. Campbell
Chief Clerk—F. J. M. D. Walmsley
Clerks—A. E. Fowler, H. L. Wiggins, J. Atkinson, G. Halliday
Draughtsman—H. H. Seed
Supervising Valuers—W. Duncan, Auckland; A. P. O'Callaghan, Christchurch; A. McKerrow, Dunedin; H. Carswell, Invercargill
District Valuers—James J. Wilson, jun., Whangarei; W. Garrett, J. J. Reynolds, Auckland; W. H. Wallis, Hamilton; Ian S. Simson, Gisborne; W. E. Griffin, Napier; H. J. C. Coutts, Hawera; S. Hill, New Plymouth; A. Barns, Wanganui; R. Gardner, Palmerston North; J. Fraser, Masterton; J. Ames, Wellington; T. W. Caverhill, Petone; E. Kenny, Picton; J. Glen, Nelson; J. Webster, Hokitika; A. D. Bayfield, Westport; D. Dick, Ashley; H. Murray, Christchurch; A. Freeman, Christchurch; A. Allan, Timaru; E. A. Atkinson, Oamaru; W. L. Craig, Palmerston South; W. Dallas, Balclutha; J. Wright, Dunedin; J. George, Queenstown; John Smaill, Gore; Charles Rout, A. Pyper, Invercargill
Clerks—Auckland, E. W. Watson, T. C. Somers; Christchurch, J. M. Wheeler, A. Millar; Dunedin, A. Clothier, J. T. Bolt; Invercargill, T. Oswin, C. de R. Andrews
Cadets—Auckland, E. Panting; Wellington, E. J. R. Cumming and F. C. Douglas; Invercargill, D. Corcoran

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GOVERNMENT INSURANCE DEPARTMENT.

Commissioner—J. H. Richardson, F.F.A., F.I.A.V.
Assistant Commissioner—D. M. Luckie
Actuary—Morris Fox
Secretary—W. B. Hudson
Chief Medical Officer—T. Cahill, M.D.
Accountant—G. W. Barltrop
Chief Clerk—R. C. Niven
Assistant Actuary—G. Leslie
Second Assistant Actuary—P. Muter
Office Examiner—G. A. Kennedy
Clerks—J. W. Kinniburgh, W. S. Smith, A. H. Hamerton, D. J. McG. Mc-

Kenzie, A. Avery, F. B. Bolt, T. L. Barker, A. L. B. Jordan, H. S. Manning, C. E. Galwey, G. Webb, F. K. Kelling, J. B. Young, G. C. Fache, J. A. Thomson, H. Rose, A. de Castro, R. P. Hood, G. A. N. Campbell, A. T. Traversi, C. J. Alexander, R. T. Smith, F. M. Leckie, H. L. Levestam, W. H. Woon, S. P. Hawthorne, J. G. Reid, A. E. Jackson, C. H. E. Stichbury, J. R. Samson, H. H. Henderson, R. Fullerton, A. H. Johnstone, G. S. Nicoll, R. S. Latta, T. Fouhy, G. E. Sadd, J. T. Gunn, J. R. Fraser, W. Spence, J. J. Feeney, T. M. Dimant, W. J. Ewart, H. Wylie, M. L. Wilson, B. Trevithick

Chief Messenger—W. Archer

AUCKLAND AGENCY.

District Manager—W. J. Speight
Chief Clerk—J. K. Blenkhorn
Clerks—C. H. Ralph

NAPIER AGENCY.

Resident Agent—J. H. Dean

WANGANUI AGENCY.

Resident Agent—A. E. Allison

WELLINGTON AGENCY.

District Manager and Supervisor of New Business—G. Robertson
Chief Clerk—M. J. K. Heywood
Clerks—W. C. Marchant, A. M. McDonald

NELSON AGENCY.

Resident Agent—A. P. Burnes

GREYMOUTH AGENCY.

Resident Agent—A. W. G. Burnes

CHRISTCHURCH AGENCY.

District Manager—J. C. Prudhoe
Chief Clerk—J. W. H. Wood
Clerk—G. J. Robertson

TIMARU AGENCY.

Resident Agent—S. T. Wicksteed

OAMARU AGENCY.

Resident Agent—O. H. Pinel

DUNEDIN AGENCY.

District Manager—R. S. McGowan
Chief Clerk—G. Crichton
Clerks—A. Marryatt

INVERCARGILL AGENCY.

Resident Agent—J. Findlay

PUBLIC TRUST OFFICE.

Public Trustee—J. W. Poynton
Solicitor—F. J. Wilson
Chief Clerk—A. A. K. Duncan
Assistant Chief Clerk—T. S. Ronaldson
Clerks—T. Stephens, P. Fair, C. Zachariah, P. Hervey, E. C. Reeves, W. A. Fordham, A. Purdie, G. A. Smyth, A. J. Cross, E. A. Smythe, J. B. Jack, W. Barr, E. O. Hales, C. Morris, S. W. Smith, C. A. Goldsmith, H. Masters, R. Price, N. M. Chesney, H. Turner, C. M. Calders, A. Peterson, O. Beck, M. E. Nash, F. Downes, J. Menzies, E. P. Hay, R. MacGibbon, G. Purnell
District Agent, Christchurch — M. C. Barnett; Clerks, T. R. Saywell, J. Allen, P. A. Devereux, A. R. Hadfield
District Agent, Auckland—E. F. Warren; Clerk, K. N. H. Browne, V. Adams, C. Robinson
District Agent, Dunedin—F. H. Morice; Clerks, W. S. McGowan, T. Young
District Agent, Greymouth—T. D. Kendall
District Agent, Nelson—E. P. Watkis
West Coast Settlement Reserves Agent and District Agent, New Plymouth—Thomas W. Fisher; Clerk, H. Oswin

ADVANCES TO SETTLERS OFFICE.

Superintendent—John McGowan
Deputy Superintendent—G. F. C. Campbell
Chief Clerk—F. J. M. D. Walmsley
Inspecting Accountant—P. Heyes
Clerks—W. Waddel, H. E. Williams, W. N. Hinchcliffe, J. E. Thompson, A. W. Knowles, W. Auld, M. J. Crombie, T. W. Foote, C. T. Fraser, J. B. Wallis, A. A. Prichard, H. O'Rourke, C. Wilson, C. B. Collins, R. G. McLennan, A. Tudhope, J. F. O'Leary, T. W. Vickery.
Chief Valuers—W. Duncan, Auckland; A. P. O'Callaghan, Christchurch; A. McKerrow, Dunedin; H. Carswell, Invercargill
Clerk at Auckland—F. B. Robertson

DEPARTMENT OF PUBLIC HEALTH.

Minister of Health—Hon. Sir J. G. Ward, K.C.M.G.

Chief Health Officer—J. Malcolm Mason, M.D., F.C.S., D.P.H., Cambridge

District Health Officer—T. H. A. Valentine, M.R.C.S.E., L. and D.P.H., R.C.P. Lond.

Native Health Officer—Maui Pomare, M.D.

Secretary—E. Horneman

Clerks—Herbert B. Magrath, F. Willis, H. Eastgate, T. P. Butler, J. W. Taylor. Typists, Ethel Evans, G. Craig

Port Health Officers,—

Whangarei—G. B. Sweet, M.B. *et* Ch.M., Sydney

Auckland—Edward Wm. Sharman, L.R.C.P. *et* R.C.S. Edin., L.F.P.S. Glas.

Kaipara Heads—Captain J. C. Smith

Onehunga—W. G. Scott, L.S.A. Lond., M.R.C.S. Eng., M.D. Durh.

Gisborne—J. W. Williams, M.B. *et* Ch.M., M.D. Edin.

Napier—T. C. Moore, M.B. *et* B.S., M.D. Univ. Dubl.

Nelson—E. J. Roberts, M.B. *et* B.S., Univ. of N.Z.

Wanganui—R. C. Earle, M.R.C.S. Eng., L.S.A. Lond.

Wellington—H. Pollen, M.D., M.S.

Picton—H. A. H. Claridge, M.B. *et* B.S., Univ. Durnam

Lyttelton—C. H. Upham, M.R.C.S. Eng., L. .C.P. Lond.

Timaru—R. S. Reid, L.R.C.P. *et* L.R.C.S. Edin.

Oamaru—A. Douglas, M.B. *et* M.S. Edin.

Port Chalmers—G. Hodges, M.B. *et* M.S. Edin.

Bluff—Jas. Torrance, M.B. *et* B.S. Univ. of N.Z.

Westport—M. Mackenzie, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., M.B. *et* B.S. Univ. Melb.

Greymouth—C. L. Morice, M.R.C.S. Eng., L.R.C.S. Eng., L.S.A. Lond.

Vaccine Distributor—J. G. F. Wilford, M.R.C.S. Eng., L.S.A. Lond.

Bacteriologist—J. A. Gilruth, M.R.C.V.S.

Assistant in Laboratory—G. H. Barker

District Health Officers—

Auckland—R. H. Makgill, M.B., M.S.

Dunedin—F. Ogston, M.D. M.S.

Acting District Health Officers—

Christchurch—W. H. Symes, M.D., M.B., M.S., B.Sc.

Nelson—E. J. Roberts, M.B., B.S.

Blenheim—W. Anderson, M.B., M.S.

Napier—H. E. Finch, M.B., Ch.B., D.P.H.

Sanitary Inspectors—

Dunedin—J. E. Gunn

Wellington—A. H. Kendall, C. A. Schauer

Auckland—C. C. Winstanley

Napier—M. Kershaw

Nelson—E. Middleton

Christchurch—D. Munro

Invercargill—K. Cameron

CADETS IN GOVERNMENT SERVICE TO BE VOLUNTEERS.

Cadets in the Civil Service are required, after arriving at the age of eighteen years, to serve for three years in a Volunteer corps. Heads of departments are required to see that cadets who come within the regulations join the Volunteer Force, and serve for the period named, and also to notify the Under-Secretary for Defence of the appointment of all cadets coming within this regulation.

ECCLESIASTICAL.

THERE is no State Church in the colony, nor is State aid given to any form of religion. Government in the early days set aside certain lands as endowments for various religious bodies, but nothing of the kind has been done for many years past.

CHURCH OF THE PROVINCE OF NEW ZEALAND, COMMONLY CALLED THE "CHURCH OF ENGLAND."

Bishops.

The Most Rev. William Garden Cowie, D.D., Auckland; consecrated 1869 (Primate).

The Right Rev. William Leonard Williams, D.D., Waiapu; consecrated 1895.

The Right Rev. Frederic Wallis, D.D., Wellington; consecrated 1895.

The Right Rev. Charles Oliver Mules, M.A., Nelson; consecrated 1892.

The Right Rev. Churchill Julius, D.D., Christchurch; consecrated 1890.

The Right Rev. Samuel Tarratt Nevill, D.D., Dunedin; consecrated 1871.

The Right Rev. Cecil Wilson, M.A., Melanesia; consecrated 1894.

ROMAN CATHOLIC CHURCH.

Archbishop.

The Most Rev. Francis Redwood, S.M., D.D., Archbishop and Metropolitan, Wellington; consecrated 1874.

Bishops.

The Right Rev. George Michael Lenihan, D.D., Auckland; consecrated 1896.

The Right Rev. John Joseph Grimes, S.M., D.D., Christchurch; consecrated 1887.

The Right Rev. Michael Verdon, D.D., Dunedin; consecrated 1896.

ANNUAL MEETINGS AND OFFICERS.

The principal present heads or officers of the various churches, and the places and times of holding the annual or periodical assemblies or meetings, are as follow:—

Church of England.—For Church purposes, the colony is divided into six dioceses, viz.: Auckland, Waiapu, Welington, Nelson, Christchurch, and Dunedin. The General Synod meets every third year in one or other of the dioceses. Representatives attend from each diocese, and also from the diocese of Melanesia.—President,

the Bishop of Auckland, Primate. The Diocesan Synods meet once a year, under the presidency of the Bishop of the diocese. The next General Synod will be held in Auckland, on the 28th January, 1904.

Roman Catholic Church.—The diocese of Wellington, established in 1848, was in 1887 created an Archdiocese and the metropolitan see. There are three suffragan dioceses—Auckland, Christchurch, and Dunedin. A Retreat is held annually in each of the four dioceses, at the end of which a Synod is held, presided over by the Bishop, and at which all his clergy attend.

In January, 1899, the first Provincial Council of New Zealand was held in Wellington, under the presidency of the Metropolitan, and attended by all the Suffragan Bishops, and a number of priests elected specially in each diocese as representatives of the whole Catholic clergy in the colony. The decrees of this Council were approved by Rome in April, 1900, were published on 1st January, 1901, and are now binding in every diocese in New Zealand.

Presbyterian Church of New Zealand.—The union of the Otago and Southland Presbyterian Church and the Presbyterian Church of northern New Zealand was effected in Dunedin on the 31st October, 1901. The united Church bears the name "The Presbyterian Church of New Zealand." The General Assembly will meet on the second Tuesday of November, 1902, in St. John's Church, Wellington; and thereafter, on ordinary occasions, alternately in Dunedin and Wellington. Moderator, the Rev. James Gibb, Dunedin; Clerk and Treasurer, Rev. David Sidey, D.D., Napier.

Methodist Church of Australasia.—The annual New Zealand Conference meets on or about the last Tuesday in February, the exact date being determined by the President, who holds office for one year. Each Conference determines where the next one shall assemble. President (1902–3), Rev. D. J. Murray, Masterton; Secretary, Rev. S. Lawry, Palmerston North. The next Conference is to meet in Durham Street Church, Christchurch.

Primitive Methodist Church.—A Conference takes place every January. The next is to be held at Ashburton, commencing 8th January, 1903. The Conference officials for the present year are: President, C. M. Luke, Esq., Wellington; Vice-President, Rev. G. Clement, Westport; Secretary, Rev. R. Hall, Bluff; Secretary of Executive Committee, Mr. D. Goldie, Pitt Street, Auckland; Treasurer of Mission Funds, Mr. Joseph Watkinson, Mangere, Auckland.

Baptist Union of New Zealand.—President, Rev. F. W. Boreham, Mosgiel; Treasurer, Mr. A. Chidgey, Christchurch; Secretary, Rev. J. J. North, Spreydon. The Union comprises 34 churches, 3,679 members, 4,678 scholars in the Sunday schools, with 590 teachers. There are also 110 local preachers, and 26 preaching-stations. This religious body has a newspaper of its own, the *New Zealand Baptist*, published in Christchurch; Editor, Rev. F. W. Boreham, Mosgiel.

Congregational Union of New Zealand.—The annual meetings are held during the month of February, at such place as may be decided on by vote of the Council. Chairman for 1902–1903, Rev, I. Sarginson, Christchurch; Chairman-elect, Rev. W. A. Evans. Wellington; Secretary, Rev. W. Day, Auckland; Treasurer, Mr. W. H. Lyon, Auckland; Registrar, Mr. F. Meadowcroft, Wellington; Head Office, Auckland.. In 1903 the meeting of the Council will be held at Dunedin. The Committee of the Union meets at Auckland on the second Tuesday of each month.

Hebrews.—Ministers: Rev. S. A. Goldstein, Auckland; Rev. H. van Staveren, Wellington; Rev. I. Zachariah, Christchurch; Rev. A. T. Chodowski, Dunedin; Mr. Alexander Singer, Hokitika. Annual meetings of the general Congregations are usually held at these places during the month of Elul (about the end of August).

DEFENCES, MILITARY AND NAVAL.*

THE defence forces consist of the Royal N.Z. Artillery and Royal N.Z. Engineers, and the auxiliary forces of Volunteers (Mounted Rifles, Naval, Garrison, and Field Artillery, Submarine Miners, Engineers, Rifle, Cycle, Bearer companies, and Defence Rifle Clubs). There is a Commander of the Forces, who is an Imperial officer. A Royal Artillery officer is Staff Officer for Artillery. To the Under-Secretary for Defence all questions of expenditure are referred.

MILITARY INSTRUCTION.

A School of Military Instruction has been established at Wellington, with an officer of the Imperial forces as Commandant.

MILITIA AND VOLUNTEER DISTRICTS.

The two islands (North and Middle) are divided into five districts and two sub-districts, each commanded by a Field Officer of Militia or Volunteers, with a staff of drill-sergeants.

ROYAL N.Z. ARTILLERY.

This Force is divided into four detachments, which are stationed at Auckland, Wellington (head-quarters), Lyttelton, and Dunedin; their principal duties are to look after and take charge of all guns, stores, ammunition, and munitions of war at these four centres. The Force consists of one lieut.-colonel, three captains, four subalterns, with an establishment of 240 rank and file.

ROYAL N.Z. ENGINEERS.

This branch, like the Artillery, is divided amongst the four centres for submarine mining and torpedo work, and consists of two captains, two subalterns, and one probationary cadet, with a total

* For information as to military contingents sent for service in South Africa, see Part II.

establishment of 96 of all ranks. They have charge of two torpedo boats and three steam launches, two submarine mining steamers of the "Sir F. Chapman" class, and of all submarine mining and torpedo stores.

Volunteers.—Mounted Rifles.

There are forty-two corps of Mounted Rifles in the North Island and thirty-one in the Middle Island, with a total strength of 5,464 of all ranks. These corps go into camp for an annual training of six days.

Volunteers.—Naval and Garrison Artillery.

There are five Naval Artillery Corps and one Garrison Artillery Corps in the North Island, and three Naval and two Garrison Artillery Corps in the Middle Island, comprising in all a total of 50 officers and 917 rank and file. They go into camp annually for sixteen days.

Volunteers.—Submarine Miners.

There are two corps of Submarine Miners in the North Island, of a total strength of 190. These corps also have cutters, &c., provided, and are instructed in rowing, knotting, splicing, signalling, and other duties pertaining to this branch of the service. Attendance at an annual camp is also compulsory.

Volunteers.—Field Artillery.

There are five batteries of Field Artillery (two in the North Island and three in the Middle Island), with a total of 430 of all ranks. They are armed with 15-pounder B.L., 9-pounder Armstrong R.B.L. guns, and 6-pounder Nordenfeldts, on field-carriages, and go into camp annually for sixteen days.

Volunteers.—Engineers.

This branch consists of four corps, with a total of 349 of all ranks, two in the North and two in the Middle Island. Besides carrying rifles they are provided with entrenching tools and all appliances for making and blowing up bridges or laying land-mines.

Volunteers.—Rifle Corps.

In this branch of the service there are a hundred and sixteen corps, fifty-five being in the North Island and sixty-one in the Middle Island, with a total strength of 7,762 of all ranks, including garrison bands.

Volunteers.—Cycle Corps.

There are Volunteer cycle corps at Auckland, Wellington, Christchurch, and Dunedin, of a maximum strength of two officers and twenty-five non-commissioned officers, rank and file: they are attached to the infantry battalions at those centres.

VOLUNTEERS.—BEARER CORPS.

Volunteer bearer corps at Auckland, Wellington, Christchurch, and Dunedin are of a maximum strength of three officers and fifty non-commissioned officers, rank and file. There is also a bearer corps at Nelson of a maximum strength of two officers and twenty-five non-commissioned officers, rank and file.

DEFENCE RIFLE CLUBS.

These have lately been established by the Government. Members can purchase rifles at cost price from Government. An annual grant of ammunition is made to those members who fulfil conditions as to quarterly drills. There are seventy-four rifle clubs, comprising about 1,500 men.

VOLUNTEERS.—CADET CORPS.

There is a force of fifty-eight cadet corps—viz., twenty-two in the North Island and thirty-six in the Middle Island.

ARMS, ETC.

The whole of the adult portion of the Force have carbines or rifles; Cadets being armed with Martini-Enfield and Snider carbines. Defence rifle clubs are armed with Martini-Enfield rifles.

ENROLMENT, ETC.

Members of the Permanent Forces are enrolled to serve for a period of eight years from enrolment, the last three years of such being in the Reserve; adult Volunteers for three years, and cadets two years. The Permanent Forces are principally recruited from men who have one year's efficient service in the Volunteers. After passing the gunnery and other courses and serving three years in the Permanent Forces the men are eligible for transfer to police and prison services.

INSTRUCTORS.

The Instructors for artillery and engineer and submarine mining corps are obtained from the School of Gunnery at Shoeburyness, and from the Royal Engineers, under a three years' engagement, on completion of which they return to their regiments.

CAPITATION.

An annual capitation of £2 10s. is granted to each efficient Volunteer, and a sum not exceeding £20 to each efficient cadet corps. One hundred and fifty rounds of ball-cartridge are issued each year free to every adult Volunteer, and twenty-five rounds to each cadet over thirteen years of age.

ADMINISTRATION.

The defence forces of New Zealand are administered under "The Defence Act, 1886," and "The Defence Act Amendment Act, 1890."

EXPENDITURE ON THE ESTABLISHMENT AND MAINTENANCE OF DEFENCES FROM 1884–85 TO 1900–1901.

Year.	Military Expenditure.	Harbour Defences.	Total.
	£	£	£
1884–85	90,816	9,601	100,417
1885–86	91,242	127,167	218,409
1886–87	89,927	139,429	229,356
1887–88	122,061	73,458	195,519
1888–89	53,591	50,089	103,680
1889–90	63,614	15,752	79,366
1890–91	80,891	10,798	91,689
1891–92	75,343	7,644	82,987
1892–93	59,808	11,205	71,013
1893–94	56,570	3,976	60,546
1894–95	62,181	2,495	64,676
1895–96	84,981	3,314	88,295
1896–97	82,443	4,690	87,133
1897–98	83,004	2,525	85,529
1898–99	114,789	10,158	124,947
1899–1900..	184,970	5,328	190,298
1900–1901..	156,218	3,960	160,178

DÉPÔTS FOR SHIPWRECKED MARINERS.

ELEVEN of the crew of the barque "Spirit of the Dawn," which was wrecked on Antipodes Island on the 4th September, 1893, remained on the island for eighty-eight days without becoming aware of the existence of the dépôt of provisions and clothing for castaways which is established there. Attention is now drawn to the fact that such dépôts are maintained by the New Zealand Government on that island, and on the Auckland, Campbell, Bounty, Kermadec, and Snares Islands.

The following are the positions of the dépôts :—

Auckland Islands.—A dépôt is placed on the south side of Erebus Cove, Port Ross, and another in Camp Cove, Carnley Harbour, and a third at the head of Norman Inlet. One boat is placed on the north-west end of Adams Island, another on Enderby Island, and another on Rose Island.

Campbell Island.—A dépôt is erected in Tucker Cove, Perseverance Harbour, and a boat has been placed at the head of that harbour.

Antipodes Islands.—A dépôt is placed abreast the anchorage on the north-east side of the principal island.

Bounty Islands.—There is a dépôt on the principal island.

Snares Island.—A dépôt has been established on this island in Boat Harbour.

Kermadec Islands.—A dépôt is established on Macaulay Island, near Lava Cascade, on the north-east end of the island, and another on Curtis Island, at the head of Macdonald Cove, on the north-western end of the island.

Finger-posts to indicate the direction of the dépôts have also been put up.

The Government steamer visits the Auckland, Campbell, Antipodes, Bounty, and Snares Islands twice a year, and the Kermadec Islands once a year.

GRAVING DOCKS AND PATENT SLIPS.

VESSELS visiting New Zealand, and requiring docking or repairs, will find ample accommodation at the principal ports of the colony.

There are in New Zealand four graving-docks; two of these are situated in Auckland, one at Lyttelton, and one at Port Chalmers.

AUCKLAND DOCKS.

The Auckland Docks are the property of the Auckland Harbour Board, and cost, with machinery, appliances, &c., £247,000. The dimensions of the docks at Auckland are as follow:—

	Calliope Dock.	Auckland Dock.
Length over all	525 feet.	312 feet.
Length on floor	500 "	300 "
Breadth over all	110 "	65 "
Breadth on floor	40 "	42 "
Breadth at entrance	80 "	43 "
Depth of water on sill at high water ordinary spring tides)	33 "	13½ "

The following is the scale of charges for the use of the Auckland and Calliope Graving Docks and appliances:—

AUCKLAND GRAVING DOCK.	£	s.	d.
Entrance fee	1	1	0
For every vessel of 100 tons (gross register), or under, per day	4	0	0
For every vessel over 100 tons (gross register), for first 100 tons, per day	4	0	0
For every additional ton (gross register), per day ..	0	0	2
For two or more vessels docking at the same time, the tonnage of which together does not exceed 100 tons (gross register), per day each	2	10	0

For shores cut in docking or hanging the vessel, there must be paid, according to injury done, such amount as may be fixed by the Dock-master.

For use of steam-kiln, 10s. per day.

For use of pitch furnace, 10s. per day.

CALLIOPE GRAVING DOCK.	£	s.	d.
Entrance fee	5	5	0
For all vessels up to 300 tons (gross register)	20	0	0
For all vessels 301 to 400 tons "	22	10	0
" 401 to 500 tons "	25	0	0
" 501 to 600 tons "	27	10	0
" 601 to 700 tons "	30	0	0
" 701 to 800 tons "	32	10	0
" 801 to 900 tons "	35	0	0
" 901 to 1,000 tons "	37	10	0

CALLIOPE GRAVING DOCK—*continued.*	£	s.	d.
For all vessels 1,001 to 1,100 tons (gross register) ..	40	0	0
" 1,101 to 1,200 tons "	45	0	0
" 1,201 to 1,300 tons "	50	0	0
" 1,301 to 1,500 tons "	55	0	0
" 1,501 to 2,000 tons "	60	0	0
" 2,001 to 3,000 tons "	65	0	0
" 3,001 to 4,000 tons "	70	0	0
" 4,001 to 5,000 tons "	75	0	0

The foregoing charges are for three days or less. After the third day in dock the following rates are charged:—

For all vessels up to 500 tons (gross register) ..	4d. per ton per diem.
For all vessels of 501 tons to 1,000 tons	3d. "
For all vessels over 1,001 tons up to 2,000 tons ..	2½d. "
For all vessels over 2,001 tons and upwards ..	2d. "

Twenty per cent. reduction on Calliope Dock rates is allowed when two or three vessels can arrange to dock on the same tide, and remain in dock the same number of hours; but such reduction is not allowed if any of the Auckland Harbour Board's vessels are docked at the same time as another vessel.

For shores cut in docking or hanging the vessel, there is to be paid, according to injury done, such amount as may be fixed by the Dockmaster.

During the year 1901, 94 vessels of various descriptions, with a total of 31,438 tons, made use of the Auckland Graving Dock, occupying it in all 223 days 10 hours, for repairs or painting.

In Calliope Dock 16 vessels were docked, with an aggregate tonnage of 23,494, and occupying the dock for 98 days 5 hours.

Dock dues for the year amounted to £2,354 5s. 4d.

Under arrangement with the Admiralty, a complete plant of the most efficient and modern machinery has been provided at Calliope Dock-yard. The workshops are now erected, and all the machinery is placed in position, with the exception of the shear-legs. This plant includes 80-ton shear-legs complete, trolly to carry 80 tons and rails, 10-ton steam crane at side of dock, engines, boilers, overhead travellers; planing, shaping, and slotting machines; radial drills, vertical drills, band-saws for iron, punching and shearing machines, plate-bending rolls; 24 in.-centre gantry lathe, 70 ft. bed; 9 in. and 12 in. gantry lathes, milling-machines, emery-grinders, screwing-machines, ditto for pipes, horizontal boring-machines, Root's blower, smiths' forges (six), coppersmith's forge, levelling-slabs, steam-hammers, lead-furnace, wall-cranes, zinc-bath, plate-furnace, jib-crane for foundry, circular-saw bench, band-saw for wood, lathe for wood, general joiner, carpenters' benches (four), kiln for steaming boards, Fox's trimmer, cupola to melt 5 tons of metal, countersinking machine, pipe-bending machine, tools of various descriptions, moulders' bins, force-pumps for testing pipes, vice-benches, electric-light engines, dynamos, &c. (two); and all other appliances and machinery required to render the plant adequate to repair any of His Majesty's ships upon the station, or any merchant vessel visiting the port. The dock and machinery will be available for use, when not required for His Majesty's vessels, in effecting repairs to any merchant vessel requiring same. Electric lights have

been provided for workshops, dock, and dockyard. The dockyard is now connected by telephone with the central exchange. An abundant supply of the purest fresh water is available at Calliope Dock and Calliope Wharf; and a most complete establishment of up-to-date machinery and appliances has been provided.

Wellington Patent Slip.

The Port of Wellington has no dock; but there is a well-equipped patent slip at Evans Bay, on which vessels of 2,000 tons can be safely hauled up. This slip is the property of a private company, and is in no way connected with the Harbour Board. It is 1,070ft. long, with a cradle 260ft. in length. There is a depth of 32ft. at high water at the outer end of the slip. A dolphin and buoys are laid down for swinging ships in Evans Bay.

The company has convenient workshops, which contain machinery necessary for effecting all ordinary repairs to vessels using the slip.

During the year ending 31st March, 1901, ninety-six vessels of various sizes, of an aggregate of 45,121 tons, were taken up on the slip for repairs, cleaning, painting, &c. The charges for taking vessels on the slip and launching them are 1s. per ton on the gross tonnage for the first full twenty-four hours, and 6d. per ton per day afterwards, unless by special agreement.

Otago Graving Dock.

The dock at Port Chalmers is vested in the Otago Dock Trust, a body entirely distinct from the Otago Harbour Board. Vessels of large size can be taken in the Otago Dock, as the following measurements will show:—

Length over all	335 feet.
Length on the floor	328 "
Breadth over all	68 "
Breadth on floor	41 "
Breadth where ship's bilge would be	43 "
Breadth at dock gates	50 "
Depth of water on sill at high-water (ordinary spring tides)	17½ "

Connected with the Otago Dock are a large machine-shop, steam-hammer, and forge, with all the appliances necessary for performing any work that may be required by vessels visiting the port. An 80-ton shear-legs has also been erected for heavy lifts.

There is also a patent slip, used for taking up small vessels.

All vessels using the Otago Graving Dock are liable to dock dues according to the following scale (unless under special contract), revised since the beginning of 1896:—

	£	s.	d.
Vessels under 200 tons, for the first three days, or part of three days	25	0	0
Vessels of 200 tons, and under 800 tons	35	0	0
800 tons and upwards	50	0	0

And for every day, or part of a day, after the first three days :—

Vessels under 300 tons					..	8d. per register ton per day.
"	300	"	and under 400	tons		7¾d. "
"	400	"	" 500	"		7½d. "
"	500	"	" 600	"		7¼d. "
"	600	"	" 700	"		7d. "
"	700	"	" 800	"		6¾d. "
"	800	"	" 900	"		6½d. "
"	900	"	" 1,000	"		6¼d. "
"	1,000 tons and upwards					6d. "

During the twelve months ended 31st December, 1901, the dock was in use 205 working-days. The number of vessels docked was fifty-eight, having a total registered tonnage of 48,058.

Lyttelton Dock and Patent Slip.

The Graving-dock at Lyttelton, which is the property of the Harbour Board, is capable of docking men-of-war, or almost all of the large ocean steamers now running to the colony. Its general dimensions are: Length over all, 503ft.; length on floor, 450ft.; breadth over all, 82ft.; breadth on floor, 46ft.; breadth at entrance, 62ft.; breadth where ship's bilge would be, on 6ft. blocks, 55ft.; depth of water on sill at high-water springs, 23ft.

The scale of charges for the use of the dock and pumping machinery are as follow :—

				£	s.	d.
For all vessels up to 300 tons, for four days or less			..	20	0	0
"	301 to 400 tons,	"	..	22	10	0
"	401 to 500 tons,	"	..	25	0	0
"	501 to 600 tons,	"	..	27	10	0
"	601 to 700 tons,	"	..	30	0	0
"	701 to 800 tons,	"	..	32	10	0
"	801 to 900 tons,	"	..	35	0	0
"	901 to 1,000 tons,	"	..	37	10	0
"	1,001 to 1,100 tons,	"	..	40	0	0
"	1,101 to 1,200 tons,	"	..	45	0	0
"	1,201 tons and upwards,	"	..	50	0	0

After the fourth day in dock, the following rates are charged :—

For all vessels up to	500 tons	..	4d. per ton per day.
For all vessels of	501 tons to 1,000 tons	..	3d. "
For all vessels over	1,001 tons up to 2,000 tons	..	2¾d. "
	2,001 tons up to 3,000 tons	..	2½d. "
"	3,001 tons up to 4,000 tons	..	2¼ "
"	4,001 tons up to 5,000 tons	..	2d. "

Twenty per cent. reduction on the above rates is allowed when two or three vessels can arrange to dock on the same tide and remain in dock the same number of hours. Two vessels of 1,000 tons each can be docked at the same time. The 20-per-cent. rebate is not allowed if any of the Lyttelton Harbour Board's vessels are docked at the same time as another vessel. The twenty-four hours constituting the first day of docking commences from the time of the dock being pumped out.

Any vessel belonging to H.M. Navy or any colonial Government, or any commissioned ship belonging to any foreign nation, is admitted into the graving dock without payment of the usual dock dues, but is charged only such sum as is necessary for the reimbursement of actual expenditure of stores, wages, and materials.

There are electric lights, one on each side of the graving-dock; and there is a workshop alongside the dock, and several other engineering works within a short distance of it, where repairs and heavy foundry-work can be done.

The graving dock and machinery cost £105,000. The interest and sinking fund on that sum, at 6½ per cent., amounts to £6,825 per annum. Since its construction, the dock dues for the nineteen years, ended 31st December, 1901, amounted to £19,161 5s. 7d., and the working expenses to £11,526 14s. 11d., leaving a credit balance for nineteen years, ended 31st December, 1901, of £7,634 10s. 8d.

During the year 1901 twenty-six vessels were docked, and the dock dues amounted to £1,864 3s. 5d. For the nineteen years ending 1901, 379 vessels were docked.

Patent Slip, Lyttelton.

Alongside the graving dock is a patent slip, with a cradle 150ft. in length, suitable for vessels of 300 tons. It belongs to the Harbour Board.

The following is the scale of charges:—

Up to 75 tons gross register, £4 for five days, and 10s. per day after the fifth day.
Over 75 tons and up to 150 tons gross register, £6 for five days, and 15s. per day after fifth day.
Over 150 tons and up to 250 tons gross register, £8 for five days, and 20s. per day after fifth day.
Over 250 tons gross register, £10 for five days, and 20s. per day after fifth day.
A day to mean between sunrise and sunset.
The above rates cover the cost of all labour connected with hauling up and launching (the crew of the vessel to give their assistance as may be required), and the cost of blocking a vessel and shifting the blocks after hauling up.

Timaru Slip.

The Timaru slip is capable of taking up a vessel of 200 tons.

Nelson Cradle.

The Anchor Steamship Company's cradle can take up a vessel of 150 tons.

HARBOURS.

Pilotage, Port Charges, etc.

Pilotage, port charges, berthage charges, &c., at fourteen of the principal harbours in New Zealand, as on the 1st January, 1902 (compiled by Mr. C. Hood Williams, Secretary to the Lyttelton Harbour Board):—

Auckland.

Pilotage (not compulsory): Sailing-vessels, inwards and outwards, 3d. per ton each way.

Steamers, inwards and outwards, 2d. per ton each way when services of pilot are taken.

Port charges: 3d. per ton half-yearly (on all vessels over 15 tons) in one payment.

Harbourmaster's fees: 1d. per ton.

Berthage: Every person who shall use any wharf with any vessel shall pay for the use thereof—Ferry steamers, £1 to £1 10s. per month; other vessels under 20 tons, 1s. per day, not exceeding 10s.. For every vessel not included in the above, ¼d. per ton per day. Outside berths, ⅛d. per ton per day.

GISBORNE.

Pilotage (not compulsory): Sailing-vessels over 100 tons, first 100 tons, 6d. per ton; every ton over 100 tons, 2d. per ton. Into and out of Turanganui River: Sailing-vessels, 3d. per ton; sailing-vessels towed, 2d. per ton; steamers, 2d. per ton.

Port charges: Steamers, sailing-vessels, or boats plying within the harbour or engaged in coasting only, 3d. per ton quarterly; steamers sailing-vessels, or boats plying within the harbour and not engaged in coasting, only on arrival (not to exceed 10d. per ton in any half-year), 1d. per ton; steamers or sailing-vessels from beyond the Australian Colonies, on arrival, 4d. per ton.

Harbourmaster's fees: Free.

Berthage alongside the wharves: Per day or part, under 50 tons, 5s.; over 50 tons and up to 75 tons, 7s. 6d.; over 75 tons up to 100 tons, 10s.; for every additional 50 tons or fraction thereof, 2s. 6d. Vessels discharging outside of bars to pay half foregoing dues. Steamers to pay double rates as per tonnage; and in all cases sailing-vessels to make way for steamers.

NAPIER.

Pilotage (not compulsory): Into Inner Harbour—Sailing-vessels, 4d. per ton; steamers, 3d. per ton. To roadstead—First 100 tons, sailing-vessels, 6d. per ton; steamers, 3d. per ton. Every ton over 100 tons—Sailing vessels 2d. per ton; steamers, 1d. per ton. Into Breakwater Harbour—First 100 tons, sailing vessels, 6d. per ton; steamers, 3d. per ton. Every ton over 100 tons—Sailing-vessels, 2d. per ton; steamers, 1d. per ton. Outward pilotage, half rates.

Port charges: 6d. per ton quarterly in advance, vessels plying within port or engaged in coasting only; 2d. per ton on arrival of vessels not plying within port or not solely employed in coasting, but not to exceed 1s. per ton in any half-year. Ocean-going vessels (not being "colonial trading" or coasting vessels) returning to port within one month from date of first arrival are exempt from port charges for second or subsequent arrivals within one calendar month.

Harbourmaster's fees: 5s. per vessel of less than 60 tons. Steamers under 60 tons and licensed as lighters are exempt. 1d. per ton sailing-vessels 60 tons and upwards; 10s. per vessel steamers of 60 tons and under 120 tons; 1d. per ton steamers of 120 tons and upwards. Vessels paying for pilotage service inwards do not pay Harbourmaster's fees.

Berthage: Breakwater Harbour wharves—3d. per ton on cargo landed, shipped, or transhipped; 1s. each horse or large cattle shipped or transhipped; ½d. each sheep or small animal shipped or transhipped. Other wharves—10s. per vessel of 60 tons; £1 per vessel over 60 tons to 120 tons; 2d. per ton vessels over 120 tons. Half rates only charged where vessels entering the Inner Harbour pay for pilotage services. Vessels licensed as lighters or tow-boats shall, whilst actually employed at lighterage work, pay one-third of the foregoing charges upon each and every trip.

Hawsers and moorings: Vessels at wharf in Breakwater Harbour—¼d. per ton per day, or part of a day, on registered tonnage. Vessels moored to buoys within Breakwater Harbour, ⅛d. per ton per day or part of a day.

Fenders: Vessels at wharves in Breakwater Harbour—5s. per day, vessels under 500 tons; 7s. per day, vessels of 500 tons and under 1,000 tons; 10s. per day

vessels of 1,000 tons and under 1,500 tons; 15s. per day, vessels of 1,500 tons and under 2,000 tons; £1 per day, vessels of 2,000 tons; and so on, in proportion.

New Plymouth.

Pilotage (compulsory): Charged both inwards and outwards, intercolonial or coasting—Sailing-vessels, 3d. per ton; steamers, 1½d. per ton; foreign sailing-vessel or steamer, ½d. per ton.

Port charges: Intercolonial, 4d. per ton, payable half-yearly; foreign, ½d. per ton on arrival in roadstead.

Berthage rate: 3½d. per ton on all cargo landed, shipped, or transhipped outwards; on registered tonnage also ½d. per ton.

Warps: 1d. per ton register for first 100 tons; ½d. per ton for excess.

Fenders: 1s. per day or part of day.

Water (minimum 3s.): 5s. per 1,000 gallons.

Wanganui.

Pilotage: All vessels when piloted by signals from the staff only, 1d. per ton register. River pilotage, to be charged for any assistance rendered by the pilot or any of his crew inside the bar, 2d. per ton. When a pilot boards and conducts a vessel outside the bar, 3d. per ton. Steamers engaged in tendering ocean steamers at anchor in the roadstead charged half pilotage rates.

Port charges: Nil.

Harbourmaster's fees: Free.

Berthage: For every steamer using any wharf, being berthed alongside, and whether discharging or loading cargo or not, 2d. per ton on gross register for first day of eight working hours, and 1d. for every succeeding day of eight working hours. For every sailing-vessel the charge to be 2d. for first day of eight working hours, and ½d. for every succeeding day of eight working hours, not exceeding five days. For every vessel occupying a berth outside another vessel, and loading or discharging cargo, ½d. per ton on gross register per day of eight working hours whilst loading or discharging. Ships' dues on vessels detained in port by stress of weather will not be charged after the third day.

Wellington.

Pilotage (optional): Sailing-vessels inwards, 4d. per ton; sailing-vessels outwards, 3d. per ton; steamers inwards, 3d. per ton; steamers outwards, 2d. per ton. Pilotage includes the removal fee to or from the berth at 1d. per ton.

Port charges: 2d. per ton on arrival; not exceeding 6d. in any half-year. Half-yearly days, 1st January and July. Steamers arriving for coal, stores, water, or for receiving or landing mails or passengers and their luggage, which do not come to any wharf or receive or discharge cargo within the port, are exempt from port charges.

Harbourmaster's or berthing fee on vessels of 120 tons and upwards, 1d. per ton; under 120 tons, 10s. Vessels paying pilotage are exempt. Exemption berthage certificates are given to competent masters in the coastal and intercolonial trades, but not to those in foreign trade.

Berthage: None, unless vessels delay discharging or loading for an undue time.

Nelson.

Pilotage (compulsory): Steamers, inwards and outwards, 1d. per registered ton. Sailing-vessels, inwards and outwards, 3d. per ton. Minimum pilotage each way (in all cases), £1.

Port charges: For vessels not employing the pilot, to pay the following, upon first arrival, half-yearly: Vessels over 100 tons register, 1s. per ton; vessels under 100 tons register, 6d. per ton.

Harbour lights: Vessels not employing the pilot, over 100 tons register, 1d. per ton; under 100 tons register, ½d. per ton, on arrival.
Harbourmaster's fees: 120 tons and upwards, 1d. per ton; less than 120 tons, 10s. for each removal of any steamer or sailing vessel within the harbour.
Berthage, fenders, and warps: Nil.

Westport.

Pilotage: Free (signal-station). Four pilots authorised.
Port charges: Receiving and discharging ships' ballast, 1s. per ton; minimum charge, 20s.; 1d. per ton for use of shoot.
Harbourmaster's fees: Free.
Berthage: Use of wharf, ½d. per ton per day; minimum charge, 5s.; maximum charge, £5 10s.

Greymouth.

Pilotage: Free (signal-station).
Port charges: Discharging ships' ballast, 6d. per ton.
Harbourmaster's fees: Free.
Berthage: Use of wharf, 6d. per ton net register per trip. Vessels in ballast for coal or timber, 1d. per ton net register for the first four days; maximum, £5 10s.; minimum, 5s.

Lyttelton.

Pilotage (compulsory): Pilotage, inwards and outwards, sailing-vessels 3½d. per ton; steamers, 2½d. per ton. Free on second call on same voyage.
Port charges: 2d. per ton, quarterly in advance, for vessels of 100 tons and upwards plying within the port or employed in coasting only, not to exceed 6d. per ton in any half-year; 2d. per ton for vessels of 100 tons and upwards not plying within the port or not solely employed in coasting, not to exceed 6d. per ton in any half-year. For exemptions from pilotage and harbour fees, see sections 132, 133, and 134 of "The Harbours Act, 1878."
Harbourmaster's fees: Free.
Berthing charges: None.
Warps (21 in. coir hawsers): £2 per warp for use during a vessel's stay in port, not exceeding six months.
Fenders (soft wood): £1 for first day, and 10s. per day after. 10s. for use of each hardwood fender.

Timaru.

Pilotage (compulsory): Sailing-vessels, 3d. per ton inwards and outwards; when tug used, 2d. per ton; steamers, 2d. per ton inwards.
Port charges: Coasters, 1½d. per ton each trip; sailing-vessels, not coasters, 3d. per ton each trip; steam-vessels, not coasters, 6d. per ton in cargo worked; in all cases not to exceed 1s. 3d. per ton in any half-year.
Harbourmaster's fees: 1d. per ton each service. This fee is charged to all vessels or steamers not paying pilotage.
Berthage: 3d. per ton on all cargo landed or shipped.
Hawsers and moorings: Vessels at wharves, ½d. per ton register for first seven days; subsequent days, ¼d. per ton. Vessels at buoys, under 800 tons register, ½d. per ton; over 800 tons, ⅓d. per ton.
Fenders: Sailing-vessels under 500 tons register, 2s. per day; under 1,000 tons, 3s. per day; over 1,000 tons, 4s. per day. Steamers under 1,000 tons register, 4s. per day; under 1,500 tons, 10s. per day; under 2,000 tons, 15s. per day; over 2,000 tons, £1 per day.

Oamaru.

Tonnage rate: On cargo, inwards or outwards—Coal, merchandise, stone, produce, and timber, 8d. per ton; wool, 2s. per ton; frozen sheep, 1d. per carcase; frozen lamb, 1d. per carcase; rabbits and hares, 3s. per ton, gross-

weight; all other frozen goods 3s. per ton, gross dead weight; live-stock, 1s. 8d. per ton. Note.—Collected in the same manner as bertnage dues have been collected.

Warps: ½d. per ton per day for seven days; ¼d. per ton per day thereafter.

Otago.

Pilotage (compulsory): Inwards and outwards, sailing-vesssls without tug, 6d. per ton; with tug, 4d. per ton; steamers, 4d. per ton. Foreign steamers calling twice on one voyage only charged once. All vessels holding exemption certificates, one annual pilotage. For every vessel under steam carrying an exempt pilot and employing a Board's pilot the charge shall be ½d. per ton for the Upper Harbour.

Port charges: 6d per ton half-yearly, all vessels.

Harbourmaster's fees: Vessels less than 120 tons, 10s.; over 120 tons, 1d. per ton.

Berthage: Vessels trading within the port—10 tons, 5s. per quarter; 25 tons, 10s. per quarter; 50 tons, 15s. per quarter; 100 tons, £1 per quarter. Vessels trading beyond the port—Sailing-vessels ¼d. per ton (maximum, eighteen days, £10); steam-vessels, ½d. per ton per day. Vessels laid up for less than a month, one-half the above rates; over a month, ½d. per ton per month.

Towage: When assistance is given to steam-vessels under steam, one-fourth usual towage, not exceeding £5 for Upper Harbour, and £7 for Lower Harbour.

Bluff.

Pilotage (compulsory): Steamers, inwards and outwards, 3½d. per registered ton; sailing-vessels, 5½d. inwards and outwards if tug not employed; 3½d. per registered ton inwards and outwards if tug employed. Sailing-vessels in ballast, 3½d. per registered ton inwards and outwards. Steamers in and out, 7d. per registered ton, payable yearly; sailing-vessels, in and out, 11d. per registered ton, payable yearly.

Port charges: On all vessels, per trip, 2d. per registered ton, or in one sum, half-yearly from date of entry, 6d. per registered ton.

Harbourmaster's fees: Free.

Baharge: Steamers, 2d. per ton net register for the first day, and 1d. per ton per week or part of a week thereafter. Sailing-vessels and hulks of over 50 tons register, 1d. per ton net register per week for the first four weeks, and ¼d. per ton per week thereafter.

Wharfage Rates.

Wharfage rates at fourteen of the principal harbours in New Zealand, as on 1st January, 1902 (compiled by Mr. C. Hood Williams, Secretary to the Lyttelton Harbour Board):—

Auckland.

General Merchandise.—2s. per ton imports; 1s. per ton exports.
Transhipments: Half-rates when declared, or 2s. 6d. per ton, including labour and seven days' storage.

Grain and Agricultural Produce.—1s. 6d. per ton landed; 1s. per ton shipped.
Transhipments: Half-rates when declared, or 2s. 6d. per ton, including labour and seven days' storage.

Frozen Meat, Butter, &c.—1s. 6d. per ton landed; 1s. per ton shipped.
Transhipments: Half-rates when declared, or 2s. 6d. per ton, including seven days' storage and labour.

Wool.—6d. per bale, shipped or landed.
Transhipments: If landed, dumped, and re-shipped, 3d. per bale.

Coal.—1s. 3d. per ton landed; 6d. per ton shipped.
Transhipments: Shipped or discharged over side for steamer's use, free.

Timber.—Sawn, 2s. per 1,000 ft. landed; 1s. per 1,000 ft. shipped. Baulk or round (less 12½ per cent.), 1s. per 1,000 ft. landed, 6d. per 1,000 ft. shipped.

Transhipments: Half landing charges when declared, or 2s. 6d. per ton, including labour and seven days' storage.

NOTE.—Wharfage on agricultural produce, frozen meat, coal, &c., was raised 2d. per ton, and on wool 2d. per bale, and timber 1d. per 100 ft., on 1st August, 1899.

GISBORNE.

General Merchandise.—Imports, 5s. to 6d.; exports, 2s. 6d. to 6d. By measurement, from 40 cubic feet to 4 cubic feet; same for weight. Ale, beer, and porter, per gallon—Import, 1½d., export, ½d.; spirits and wine, per ton measurement, 7s. 6d. No export charges on goods that have paid inward wharfage.

Transhipments: Free.

Grain and Agricultural Produce.—Grain—Imports, 5s.; exports, 1s. Grass-seed—Imports, 5s.; exports, 2s. 6d. (12 sacks).

Transhipments: Free.

Frozen Meat, Butter, &c.—Sheep, 2d. per carcase; lambs, 1d. per carcase; haunches, legs, &c., 2s. 6d. per ton.

Transhipments: Free.

Wool.—1s. 3d. per bale, export.

Transhipments: 3d. per bale if landed and reshipped. Free if transhipped into vessel.

Coal.—2s. per ton.

Transhipments: Coal for engines and freezing-ships, free.

Timber.—Sawn, 4s. per 1,000 ft.; baulk, 1s. per 1,000 ft., imports; 1s., and 6d., per 1,000 ft., exports.

Transhipments: Free.

NAPIER.

General Merchandise.—2s. 6d. per ton imports, 1s. 3d. per ton exports, according to measurement or weight. Ballast, inwards, 1s. per ton; outwards, 1s. per ton. Empties, half rates.

Transhipments: Quarter import rates, Outer Harbour; half import rates, Inner Harbour.

Grain and Agricultural Produce.—2s. 6d. imports; 1s. 3d. exports, according to measurement or weight.

Transhipments: Quarter import rates, Outer Harbour; half import rates, Inner Harbour.

Frozen Meat, Butter, &c.—Imports free; exports 2s. 6d. per ton. Tallow and pelts, imports free; exports 2s. 6d.

Transhipments: Quarter import rates, Outer Harbour; half import rates Inner Harbour.

Wool.—1s. per bale, exports only. Imports, free.

Transhipments: 3d. over side; 6d. per bale if landed for transhipment.

Coal.—2s. imports; 1s. exports.

Transhipments: Quarter rates, Outer Harbour; half rates, Inner Harbour. Coal for engines and freezing ships, Outer Harbour, free, if declared so.

Timber.—3s. 4d. per 1,000 ft., imports; 1s. 3d. per 1,000 ft. exports.

Transhipments: Half rates, Inner Harbour; quarter rates, Outer Harbour.

NOTE.—Goods other than wool and flax landed on a wharf for transhipment to a vessel lying at another berth, charged inward wharfage only when declared at time of entry

NEW PLYMOUTH.

General Merchandise.—2s. per ton.

Transhipments; 1s. 6d. per ton.

Grain and Agricultural Produce.—2s. per ton; grass-seed, 2s. (20 sacks).

Transhipments: 1s. 6d. per ton.

Frozen Meat, Butter, &c.—2s. per ton.
Transhipments: 1s. 6d. per ton.
Wool.—6d. per bale; five bales of 4 cwt., 2s. per ton; three bales of over 4 cwt. 2s. per ton.
Transhipments: Three-quarter rates.
Coal.—2s. per ton; brown coal, 1s. 9d.; with labour.
Transhipments: Three-quarter rates, with labour.
Timber.—480 ft. per ton, 2s.; 320 ft. per ton (rough or sawn), with labour.
Transhipments: Three-quarter rates.

WANGANUI.

General Merchandise.—Imports, 3s. per ton; exports, 2s. per ton.
Transhipments: Half-rates.
Grain and Agricultural Produce.—Imports, 3s. per ton; exports, 2s. per ton. Potatoes, export, 1s. per ton.
Transhipments: Half-rates.
Frozen Meat, Butter, &c.—Sheep, ½d. per carcase; lambs, ½d. per carcase; legs, shoulders, and loins calculated at so many to a carcase, according to freight.
Wool.—6d. per bale.
Transhipments: Half rates.
Coal.—1s. per ton. Coal for ship's use, outward, 6d. per ton.
Transhipments: Half-rates.
Timber.—6d. per 100 ft.; for shipment, 2d.; white pine, 1d.
Transhipments: Half rates.

WELLINGTON.

General Merchandise.—2s per ton inwards, including labour and one night's storage. Inward cargo landed after noon on Friday is stored free till noon on following Monday; landed after noon on Saturday is stored free till 5 p.m. on the following Tuesday. 1s. per ton outwards, including labour. Railway wharfage—1s. inwards; 6d. outwards, without labour.
Transhipments: 2s. 6d. per ton, including labour and one week's storage. Over side of vessel lying at wharf, 6d. per ton.
Grain and Agricultural Produce.—2s. per ton inwards, including labour and one night's storage; 1s. per ton outwards, including labour. Railway wharfage—1s. inwards; 6d. outwards, without labour.
Transhipments: 2s. per ton, including labour and seven days' storage. Over side of vessel at wharf, 6d. per ton.
Frozen Meat, Butter, &c.—1s. inwards; 1s. outwards, without labour. Railway wharfage—1s. inwards; 6d. outwards, without labour.
Transhipments: Meat, 1s. 3d. per ton, without labour; butter, 2s. 6d. per ton, including labour and storage. Meat, butter, &c., over side of vessel at wharf, 6d. per ton.
Wool.—4d. per bale at Railway Wharf, without labour; 6d. per bale at other wharves, including labour.
Transhipments: 6d. per bale, including labour, and 3d. additional if stored. Over side of vessel to vessel at wharf, 3d. per bale.
Coal.—1s. per ton imports; 6d. per ton exports, without labour. Railway wharfage—1s. per ton inwards; 6d. per ton outwards, without labour.
Transhipments: Across wharf for steamer's use, free. From vessel or hulk to vessel at wharf, free.
Timber.—2d. per 100 ft. inwards; 1½d. per 100 ft. outwards, without labour. If labour supplied, 2d. per 100 ft. added inwards, and 1½d. outwards. Railway wharfage—2d. inwards; 1½d. outwards, without labour.
Transhipments: 2s. 6d. per ton, including seven days' storage and labour; and 6d. over vessel's side into another.

NELSON.

General Merchandise.—2s. per ton, imports and exports, with labour.
Transhipments: Free, when not landed on wharf; 2s. 6d. if landed.
Grain and Agricultural Produce.—1s. 6d. per ton, imports and exports, with labour.
Transhipments: Free, when not landed on wharf; 2s. 6d. if landed.
Frozen Meat, Butter, &c.—None shipped.
Transhipments: Free, when not landed on wharf; half rates if landed.
Wool.—Exports, 1s. per bale; imports free.
Transhipments: Free, when not landed on wharf; half rates if landed.
Coal.—1s. per ton imports; 2s. with labour. Free exports.
Transhipments: 2s. 6d. per ton, with labour. Free, when not landed on wharf.
Timber.—1d. per 100 ft. super., import; 1d. per 100 ft. super., export; 2s. per ton by measurement, with labour.
Transhipments: Free, when not landed on wharf; half rates if landed on wharf. Re-shipments, 2s. 6d. per ton.

WESTPORT.

General Merchandise.—2s. per ton.
Transhipments: 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Grain and Agricultural Produce.—2s. per ton.
Transhipments: 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Frozen Meat, Butter, &c.—2s. per ton.
Transhipments: 2s. 6d. per ton, including labour and one week's storage.
Wool.—6d. per bale.
Transhipments: 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Coal.—6d. per ton.
Timber.—2d. per 100 ft. If for export and carried by rail, free.

GREYMOUTH.

General Merchandise.—3s. per ton. This charge includes 1s. a ton for receiving and delivering.
Transhipments; 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Grain and Agricultural Produce—3s. per ton. This charge includes 1s. a ton for receiving and delivering.
Transhipments: 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Frozen Meat, Butter, &c.—3s. per ton. This charge includes 1s. a ton for receiving and delivering.
Transhipments: 2s. 6d. per ton, including labour and one week's storage.
Wool.—6d. per bale.
Transhipments: 2s. 6d. per ton, including labour and one week's storage; 1s. per ton if transhipped to vessel or lighter.
Coal.—6d. per ton inwards; 3d. outwards.
Timber.—2d. per 100 ft. If for export and carried by rail, free.

LYTTELTON.

General Merchandise.—1s. 6d. per ton.
Transhipments: Free, whether landed on wharf or otherwise.
Grain and Agricultural Produce.—6d. per ton.
Transhipments: Free.
Frozen Meat, Butter, &c.—6d. per ton.
Transhipments: Free, whether landed on wharf or otherwise.

Wool.—6d. per bale.
Transhipments: Free.
Coal.—6d. per ton.
Transhipments: Free, whether landed on wharf or otherwise.
Timber.—3d. per 100 ft.
Transhipments: Free.

N.B.—All re shipments of goods from Lyttelton under declaration, free.

TIMARU.

General Merchandise.—2s. per ton.
Transhipments: Half rates.
Grain and Agricultural Produce.—1s. 6d. per ton.
Transhipments: Half rates.
Frozen Meat.—½d. per carcase.
Transhipments: Half rates.
Wool.—1s. per bale.
Transhipments: Half rates.
Coal.—2s. per ton.
Transhipments: Half rates. For bunkering purposes, free.
Timber.—4d. per 100 ft.
Transhipments: Half rates.

OAMARU.

General Merchandise.—2s. per ton.
Transhipments: Free.
Grain and Agricultural Produce.—2s. per ton.
Transhipments: Free.
Frozen Meat, Butter, &c.—½d. per sheep. Butter, as merchandise, 2s. per ton.
Transhipments: Free.
Wool.—6d. per bale.
Transhipments: Free.
Coal.—2s. per ton.
Transhipments: Free.
Timber.—5d. and 7d. per 100 ft. Fencing posts and rails, 4s. per 100. Palings, 7d. per 100.
Transhipments: Free.

DUNEDIN.

General Merchandise.—3s., 4s., and 5s. per ton, imports; 9d., 2s., and 3s. per ton, exports. (Classified.)
Transhipments: 2s. per ton.
Grain and Agricultural Produce.—1s. per ton, imports; 1s. 3d. per ton by weight, exports; 9d. per ton on bran and pollard, exports.
Transhipments: 1s. per ton.
Frozen Meat, Butter, &c.—3s. per ton, exports; butter, imports, 4s. per ton; frozen meat, imports, 5s. per ton; sheep and lambs, 1d. per carcase.
Transhipments: 2s. per ton.
Wool.—Exports, 3s. per ton by measurement; 4s. per ton, imports (three bales to ton).
Transhipments: 2s. per ton by measurement.
Coal.—3s. per ton, imports: 9d. per ton, exports.
Transhipments: 2s. per ton.
Timber.—6d. and 3d. per 100 superficial feet, imports; 9d. per ton by measurement, exports.
Transhipments: 2s. per ton by measurement. Notice of transhipment must be given within twenty-four hours after ship's arrival.

BLUFF.

General Merchandise.—1s. 10d. per ton, imports and exports.
Transhipments: Free, when not landed on wharf; half rates if landed.

Grain and Agricultural Produce.—11d. per ton, imports and exports.
Transhipments: Free, when not landed on wharf; half rates if landed.

Frozen Meat, Butter, &c.—11d. per ton, exports; cheese, 1s. per ton.
Transhipments: Free, when not landed on wharf; half rates if landed.

Wool.—Exports, 9d. per bale; imports free.
Transhipments: Free, when not landed on wharf; half rates if landed.

Coal.—1s. 6d. per ton, imports; free exports.
Transhipments: 1s. 6d. per ton when landed ex hulk; free when not landed on wharf.

Timber.—1s. per 1,000 ft. super., import; 1s. per 1,000 ft. super., export.
Transhipments: Free, when not landed on wharf; half rates if landed on wharf.

LIGHTHOUSES.

THE coasts of New Zealand are, considering their extent, fairly well lighted, but there are many places where lights are still required. Additions to the existing lights are made from time to time as funds are available.

There are twenty-nine coastal lights—eight of the first order, fifteen of the second, three of the third, and three of smaller orders, and a second order light is about to be erected on Kahurangi Point, on the west coast of the South Island.

There has been no special difficulty in the erection of lighthouses in New Zealand, apart from the trouble caused by indifferent landings. There are no lighthouses built in the sea, such as the well-known Eddystone or Bell Rock. That on The Brothers is the only one which it is considered necessary to keep as a rock-station: that is, the keepers are relieved from time to time, three being always at the station and one on shore.

The cost of the erection of the lighthouses is given by the Marine Department as about £181,600 (the Ponui Passage Lighthouse, having been built by the Provincial Government of Auckland, the cost is not given). The annual consumption of oil is about 20,000 gallons; and the cost of maintenance, irrespective of the cost of maintaining the lighthouse steamer, is about £13,500 a year.

Besides the coastal lighthouses, there are harbour-lights at most of the ports of the colony for the guidance of vessels into and out of the ports.

The following table shows the names of the lighthouses, indicating also their situation, the order of apparatus, description, period (in seconds) and colour of the lights, and of what material the respective towers are built:—

Name of Light-house.	Order of Apparatus.	Description.	Period of Revolving Light.	Colour of Light.	Tower built of.
	Dioptric.		Seconds.		
Cape Maria van Diemen	1st order ..	Revolving	60	White	Timber.
	..	Fixed ..	..	Red, to show over Columbia Reef	
Moko Hinou ..	1st " ..	Flashing	10	White	Stone.
Tiri-Tiri (Auckland)	2nd " ..	Fixed ..	..	White, with red arc over Flat Rock	Iron.
Ponui Passage..	5th " ..	" ..	..	White and red ..	Timber
Cuvier Island ..	1st " ..	Revolving	30	White	Iron.
East Cape ..	2nd " ..	"	10	"	"
Portland Island	2nd " ..	"	30	" ..	Timber.
	..	Fixed ..	..	Red, to show over Bull Rock	
Cape Palliser ..	2nd " ..	Flashing	Twice every half-minute, with three seconds intervals between flashes	White	Iron.
Pencarrow Head	2nd " ..	Fixed ..	..	White	Iron.
Cape Egmont ..	2nd " ..	" ..	..	"	"
Manukau Head	3rd " ..	" ..	..	"	Timber
Kaipara Head ..	2nd " ..	Flashing	10	"	"
Brothers (in Cook Strait)	2nd " ..	"	10	" ..	"
	..	Fixed ..	..	Red, to show over Cook Rock	
Cape Campbell	2nd " ..	Revolving	60	White	"
Godley Head (Lyttelton)	2nd " ..	Fixed ..	..	"	Stone.
Akaroa Head ..	2nd " ..	Flashing	10	"	Timber.
Moeraki ..	3rd " ..	Fixed ..	..	"	"
Taiaroa Head ..	3rd " ..	" ..	..	Red	Stone.
Cape Saunders..	2nd " ..	Revolving	60	White	Timber.
Nugget Point ..	1st " ..	Fixed ..	..	"	Stone.
Waipapapa Point	2nd " ..	Flashing	10	"	Timber.
	Catadioptric.				
Dog Island ..	1st order ..	Revolving	30	"	Stone.
	Dioptric.				
Centre Island ..	1st order ..	Fixed ..	..	White, with red arcs over inshore dangers	Timber.
Puysegur Point	1st " ..	Flashing	10	White	"
Cape Foulwind	2nd " ..	Revolving	30	"	"
Farewell Spit ..	2nd " ..	"	60	White, with red arc over Spit end	"
Nelson ..	4th " ..	Fixed ..	..	White, with red arc to mark limit of anchorage	Iron.
French Pass ..	6th " ..	" ..	..	Red and white, with white light on beacon	"
Stephens Island	1st "	Group flashing	30	White	"

ANNUAL PENSIONS

PAID BY THE GOVERNMENT OF NEW ZEALAND, AS ON 31ST MARCH, 1902

Name.	Date from which Pension commenced.	Amount. £	s.	d.
*Under "The Civil Service Act, 1866."**				
Andrews, A. ..	1 May, 1896	141	12	0
Arrow, H. ..	1 Aug., 1881	26	0	0
Austin, A. D. ..	1 Oct., 1887	247	10	0
Anderson, J. G...	6 Jan., 1896	261	18	1
Bacon, T. ..	1 Nov., 1901	96	4	0
Baddeley, H. C...	12 Jan., 1888	225	0	0
Baker, E. ..	1 Nov., 1880	214	17	1
Barnes, G. H. ..	16 Feb., 1896	100	0	0
Batkin, C. T. ..	1 April, 1890	533	6	0
Bertrand, J. R. ..	17 Feb., 1895	135	0	0
Bicknell, F. ..	1 Feb., 1882	96	13	4
Blomfield, J. ..	21 Mar., 1889	101	15	0
Bridson, W. ..	1 Aug., 1893	146	8	7
Brown, W. R. E.	1 Aug., 1892	265	16	8
Burgess, A. ..	1 June, 1886	116	13	4
Burke, J. ..	1 July, 1899	89	0	11
Butts, E. D. ..	1 April, 1893	258	6	8
Campbell, F. E...	1 Mar., 1890	466	13	0
Catley, J. T. ..	1 Oct., 1898	223	6	8
Cheesman, W. F.	1 April, 1890	154	15	1
Clarke, H. T. ..	1 Jan., 1879	400	0	0
Clarke, H. ..	1 Oct., 1879	98	13	0
Cook, R. C. ..	1 Sept., 1895	160	14	3
Costall, J. ..	10 July, 1892	131	3	10
Creeke, W. ..	1 April, 1891	52	15	8
Crowe, A. ..	31 Dec., 1885	68	12	3
Culpan, W. ..	1 Dec., 1868	62	10	0
Cunningham, J...	1 Feb., 1888	175	0	0
Dick, S. J. ..	1 Feb., 1893	250	0	0
Dickey, A. J. ..	1 Nov., 1875	122	0	5
Earle, J. ..	13 Nov., 1888	104	10	0
Elliott, S. ..	1 July, 1898	110	11	4
Falck, F. ..	1 Mar., 1893	125	13	4
Filleul, W. G. ..	16 April, 1896	140	16	8
Freeth, J. J. ..	1 Mar., 1894	116	13	4
Gill, R. J. ..	1 Sept., 1886	228	11	5
Graham, G. H. ..	8 Sept., 1891	52	10	0
Giles, J. ..	1 Feb., 1894	238	6	8
Halliday, C. ..	31 Aug., 1886	96	13	4
Hamilton, M. ..	11 July, 1880	200	0	0
Hart, J. T. ..	12 Nov., 1890	193	7	0
Haselden, C. J. A.	1 July, 1896	255	19	1
Heddell, P. ..	17 Oct., 1894	90	0	0
Henn, J. ..	1 April, 1893	88	3	4
Hill, C. J. ..	9 Feb., 1895	72	0	0
Holden, T. ..	13 Oct., 1878	31	5	0
Jackman, S. J. ..	1 May, 1892	149	6	8
Johnson, J. W....	1 May, 1898	78	1	6
Johnston, S. ..	8 June, 1900	173	8	3
Judd, A. ..	1 April, 1887	173	6	8
Keetley, E. ..	1 July, 1884	18	12	10
Kissling, T. ..	1 Jan., 1894	317	5	2
Laing, E. B. ..	1 April, 1887	112	10	0
Laing, W. ..	1 Feb., 1896	212	10	0
Lang, A. ..	1 Feb., 1893	75	15	3
Lincoln, R. S. ..	1 Mar., 1889	68	17	0
Lodge, W. F. ..	1 Oct., 1881	185	0	0
Lubecki, A. D. ..	1 April, 1896	200	0	0
Lusher, R. A. ..	31 Aug., 1880	76	16	8
Maitland, J. P. ..	15 Jan., 1901	411	13	4
Millar, G. ..	1 Feb., 1896	80	7	0
Miller, F. ..	1 April, 1899	141	13	4
Mitford, G. M. ..	1 Feb., 1869	196	15	0
Monson, J. R. ..	1 Oct., 1882	271	16	0
Monro, H. A. H.	1 Nov., 1880	342	17	2
Morpeth, W. J...	4 Aug., 1894	195	4	9
Morrow, H. ..	1 June, 1890	120	16	8
McCulloch, H. ..	1 Aug., 1890	233	0	0
MacDonnell, R. T.	23 July, 1890	150	0	0
McKellar, D. ..	1 Nov., 1901	347	13	9
McKellar, H. S...	1 Aug., 1892	433	6	8
Nelson, J. ..	1 Oct., 1901	90	0	0
Norris, E. F. ..	1 Oct., 1895	88	17	9
Nuttall, J. ..	1 July, 1897	74	13	4
O'Connor, R. ..	1 Sept., 1892	147	0	6
Parris, R. ..	1 Jan., 1877	314	5	8
Pasley, E. W. ..	1 Nov., 1901	215	16	8
Pearson, W. H...	30 Sept., 1884	340	9	6
Phillips, W. M...	1 Dec., 1894	69	4	5
Pickett, R. ..	1 Aug., 1866	209	10	6
Pinwill, A. ..	1 July, 1891	120	17	0
Pitt, H. ..	1 May, 1881	100	0	0
Powell, D. ..	1 July, 1893	44	1	8
Rawson, C. E. ..	1 Dec., 1895	244	0	11
Reid, W. S. ..	1 Nov., 1900	500	0	0
Rennell, W. ..	1 Dec., 1895	167	18	4
Robertson, J. ..	6 Oct., 1892	155	0	0
Rodgerson, W. J.	1 July, 1892	248	6	8

* By an Act passed in 1871 the pension system was abolished in New Zealand. In 1893 the Civil Service Insurance Act was passed, the main provisions of which are described at the end of this table.

ANNUAL PENSIONS—*continued.*

Name.	Date from which Pension commenced.	Amount.		
Under "The Civil Service Act, 1866"—continued.		£	s.	d.
Rowe, C. ..	1 Oct., 1894	109	16	0
Searancke, W. N.	1 Feb., 1879	240	0	0
Shrimpton, J. ..	16 July, 1889	146	14	0
Silvius, H. ..	17 Jan., 1900	72	10	0
Sinclair, A. ..	1 June, 1878	195	0	0
Slater, J. ..	1 April, 1898	223	16	2
Smith, J. ..	1 June, 1894	49	5	6
Smith, S. P. ..	1 Nov., 1900	500	0	0
Smith, T. H. ..	1 July, 1876	371	8	7
Stevens, F. ..	1 Dec., 1892	183	0	0
Stewart, J. T. ..	1 May, 1889	300	0	0
Swingland, P. ..	1 Nov., 1899	96	0	0
Teesdale, F. ..	7 Oct., 1899	118	16	8
Tennant, J. ..	1 Jan., 1901	293	6	8
Thomas, G. W. ..	1 Nov., 1875	38	15	0
Thompson, R. ..	1 Mar., 1896	220	0	0
Tizard, E. F. ..	1 July, 1888	180	19	0
Treseder, P. ..	13 Oct., 1897	184	3	4
Tucker, W. ..	31 Dec., 1880	104	13	4
Veal, J. ..	1 Sept., 1885	49	15	3
Veale, J. S. ..	1 Sept., 1887	56	2	10
Von Sturmer, S. ..	1 July, 1895	288	1	11
Wardell, H. S. ..	1 July, 1888	366	13	0
White, W. ..	1 July, 1881	36	5	0
White, W. B. ..	1 July, 1873	375	4	9
Williams, E. M. ..	1 April, 1880	135	0	0
Woon, J. G. ..	1 July, 1892	209	10	6
Wrigg, H. C. W.	1 Aug., 1889	157	2	10
Under "The Hamerton Pension Act, 1891."				
Hamerton, R. C.	11 Sept., 1891	250	0	0
Under "The Meredith and Others Pensions Act, 1870."				
Hamlin, Rhoda B.	— 1865	50	0	0

Name.	Date from which Pension commenced.	Amount.		
Under "The Military Pensions Act, 1866."		£	s.	d.
Arapera te Reo	1 July, 1870	20	0	0
Brown, M. R. ..	..	75	0	0
Hastings, L. ..	..	55	0	0
Iritona, Hanita	8 Nov., 1868	12	0	0
Marara, Ngakoa	3 Dec., 1860	36	0	0
McDonald, E.	..	36	0	0
Morrison, Ann ..	26 Oct., 1866	36	0	0
Russell, C. ..	..	36	0	0
Adamson, T. ..	[a]	0	2	2*
Beamish, J. G.	[b]	0	1	6*
Corbett, George	[c]	0	2	0*
Crawford, C. F.	..	0	2	0*
Gibbons, M. C. ..	12 Oct., 1869	0	2	2*
Hamblyn, J. ..	1 Oct., 1872	0	2	2*
Hope, E. L. ..	[d]	0	1	6*
Kelly, T. ..	9 April, 1870	0	2	2*
Kershaw, P. ..	9 Aug., 1869	0	1	6*
Lacey, Garrett ..	..	0	2	2*
Lake, T. ..	..	0	2	6*
Lloyd, T. ..	[e]	0	2	0*
McDonnell, W.	..	150	0	0
McDougall, T. R.	1 April, 1898	40	0	0
McKay, G. ..	..	0	1	0*
McMahon, T. ..	[f]	0	2	0*
Ross, Edward O.	17 Nov., 1866	75	0	0
Shanaghan, J. ..	..	0	1	6*
Shepherd, R. ..	[g]	0	2	8*
Timms, W. ..	[h]	0	1	6*
Tuffin, G. ..	..	0	2	2*
Vance, R. ..	8 April, 1870	0	2	2*
Walsh, W. ..	15 Nov., 1866	0	1	6*
Wasley, Edw. O.	[i]	0	2	2*
Williamson, F.	1 June, 1869	0	2	0*
Apera te Keunga	14 May, 1864	0	2	6*
Karena Ruatani-wha	1 July, 1870	0	1	0*
Matiu Whitiki ..	1 April, 1885	0	0	6*
Mauparoa ..	1 July, 1867	0	1	0*
Mehaka Kepa ..	2 Aug., 1865	0	0	9*
Pera Taitimu ..	12 Oct., 1869	0	1	0*

* Per diem.

(a) 1s. 6d. from 25th October, 1869; increased to 2s. 2d., 7th December, 1870.

(b) 1s. from 17th December, 1868, to 17th December, 1869; 1s. 6d. from 17th December, 1869, to 17th December, 1870; 8d. from 17th December, 1870, to 30th September, 1874; increased to 1s. 6d. 1st October, 1874.

(c) 2s. from 5th June, 1867, to 5th June, 1868; 2s. from 5th June, 1868, to 5th June, 1869; permanent from 9th November, 1869.

(d) 1s. 6d. for twelve months, from 26th April, 1869; renewed for twelve months, 1870; renewed for twelve months, 1871; permanent from 12th May, 1872.

(e) 2nd October, 1869; ceased on 9th April, 1870; renewed, 22nd April, 1874.

(f) 1s. 6d. from —, 1867; increased to 2s. from 14th February, 1868.

(g) 1s. for twelve months, from 9th April, 1870; 2s. 8d., permanent, from 1st May, 1871.

(h) 1s. 6d. for twelve months, from 18th October, 1869; 1s. 6d. for twelve months, from October, 1870; permanent, from 5th November, 1871.

(i) 1s. 6d. for eight months, from 20th September, 1869; 2s. 2d. for twelve months, from 11th June, 1870; 2s. 2d. for twelve months, from 11th June, 1871; 2s. 2d. from 11th June, 1872; permanent from 12th June, 1873.

ANNUAL PENSIONS—*continued.*

Name.	Date from which Pension commenced.	Amount. £	s.	d.
Under "The Military Pensions Extension to Contingents Act, 1900."				
Berry, Mrs. Charlotte, and children	11 June, 1900	74	0	0
Collins, Lieut. Robt. W. G.	16 Aug., 1901	100	0	0
Connel, Mrs. M. A.	17 Jan., 1901	26	0	0
Harvey, Mrs. M. P.	16 Aug., 1900	50	0	0
Love, Mrs. S., and children	25 Aug., 1901	66	0	0
Under "The Walsh and Other Pensions Act, 1869."				
Hewett, Ellen A.	10 Feb., 1865	50	0	0
Under "The Supreme Court Judges Act 1858 Amendment Act, 1874," and "The Supreme Court Act, 1882."				
Prendergast, Sir J.	26 May, 1899	1133	6	8
Under "The Militia Act Amendment Act, 1862."				
Bending, W. ..	..	0	2	0*
Bilton, F. ..	..	0	2	0*
Cody, W. ..	..	0	1	0*
Dunn, A. J. N. ..	..	0	2	0*
King, E. M. ..	..	80	0	0
Leaf, R. ..	(k)	0	0	6*
Skinner, W. H.	..	0	2	6*
Vickery, W. ..	..	0	2	0*
Woolfe, T. ..	..	0	2	0*
Under "The Schafer, McGuire, and Others Pensions Act, 1872."				
McGuire, E. ..	29 Sept., 1871	0	1	0*
Russell, W. ..	1 July, 1871	0	1	0*

* Per diem.

(k) 1s. from 10th May, 1865; renewed for twelve months, April, 1866; again renewed for twelve months; 8d. for twelve months, from 1868 to 10th May, 1869; 6d. for twelve months, from May, 1869; permanent from 11th May, 1870.

New Zealand Cross Gratuities (£10 per Annum).

Adamson, Thomas, 7th May, 1869.
Austin, Samuel, 10th March, 1869.
Black, Solomon, 10th March, 1869.
Biddle, Benjamin, 10th March, 1869.
Hill, George, 10th April, 1869.
Lingard, William, 10th March, 1869.
Mace, Francis Joseph, 10th March, 1869.
Maling, Christopher, 10th March, 1869.
Mair, Gilbert, 7th February, 1870.
Preece, George, 10th March, 1869.
Roberts, John Mackintosh, 10th March, 1869.
Rodriguez, Antonio, 10th March, 1869.
Shepherd, Richard, 13th March, 1869.
Smith, Angus, 7th June, 1869.

Miscellaneous Pensions.

Pensions of late Provincial Government, Nelson—Mrs. Robinson's three daughters, £100.
Pension to Mrs. Elizabeth Ford, £46; pension of late F. G. Rawson continued to his widow, £45; pension to Aperahama Tahumirangi for wounds received when in the service of the New Zealand Government, £10.

NEW ZEALAND NEWSPAPERS.

There are (January, 1902) 211 publications on the register of newspapers for New Zealand.

The names of the newspapers, with the postal districts and towns in which they are printed, are given in the following list, the second column showing the day or period of publication.

M. signifies morning paper; E. evening paper:—

AUCKLAND.

Auckland—
- Auckland Evening Star (E.) .. .. .. Daily.
- Auckland Weekly News and Town and Country Journal (M) Saturday
- Bible Standard (M.) .. .. Monthly.
- Catholic Chronicle (M.) .. .. "
- Christian Worker .. .. "
- Church Gazette (M.) .. .. "
- Danica (M.) .. .. .. Thrice monthly (1st, 10th, 20th).
- New Zealand A B C Guide .. .. .. Monthly.
- New Zealand Farmer, Bee and Poultry Journal (M.) .. "
- New Zealand Graphic, Ladies' Journal, and Youths' Companion .. .. Wednesday.
- New Zealand Herald (M.) .. .. .. Daily.
- New Zealand Illustrated Magazine .. .. Monthly.
- New Zealand Illustrated Sporting Review and Licensed Victualler's Gazette (M.) .. .. .. Thursday.
- New Zealand Illustrated Tit-Bits (M.) .. .. Saturday.
- New Zealand Joyful News .. .. .. Monthly.
- Observer (M.) .. .. Saturday.
- Produce Circular and Monthly Report (M.) .. .. Monthly.
- Sharland's Trade Journal .. .. .. Saturday.

Coromandel—
- Coromandel County News (E). .. .. .. Tuesday, Friday.

Dargaville—
- Wairoa Bell and Northern Advertiser (E.) .. .. " "

Hamilton—
- Waikato Argus (E.) .. .. Daily.
- Waikato Times and Thames Valley Gazette (E.) .. "

Kawakawa—
- Northern Luminary (E.) .. .. .. Friday.

Kawhia—
- Kawhia Settler and Raglan Advertiser (M.) .. .. Saturday.

Onehunga—
- Manukau and Franklin Mail and Auckland Courier (E.) .. Friday.
- Manukau County Chronicle (M.) .. .. .. Saturday.
- Rodney and Otamatea Times, Waitemata and Kaipara Gazette (M.) .. .. Friday.
- Weekly Onehunga Independent and District Advertiser (M.) Saturday.

Rotorua—
- Hot Lakes Chronicle (M.) .. .. .. "

Whangarei—
- Northern Advocate (E.) .. .. .. Friday.

THAMES.

Karangahake—
- Goldfields Advocate and Ohinemuri County Chronicle (M.) Tues., Thur., Sat.

Opotiki—
- East Coast Guardian (E.) .. .. .. Wed., Saturday.
- Opotiki Herald, Whakatane County and East Coast Gazette (E.) .. .. Tuesday, Friday.

Paeroa—
- Ohinemuri Gazette (E.) .. .. .. Mon., Wed., Fri.

Tauranga—
- Bay of Plenty Times and Thames Valley Warden (E.) .. Mon., Wed., Fri.

Te Aroha—
- Te Aroha and Ohinemuri News and Upper Thames Advocate (M.) .. .. Tues., Thur., Sat.

Thames—
- Thames Advertiser and Miners' News (M.) .. .. Daily.
- Thames Star (E.) .. .. "

Waihi—	
Waihi Chronicle (M.)	Wed., Saturday.
Waihi Daily Telegraph (E.)	Daily.
Waitekauri—	
Golden Age (E.)	Wed., Saturday.
GISBORNE.	
Gisborne—	
Gisborne Times (M.)	Daily.
Poverty Bay Herald (E.)	"
NEW PLYMOUTH.	
Inglewood—	
Record and Waitara Age (M.)	Wed., Saturday.
Weekly Record (M.)	Saturday.
New Plymouth—	
Budget and Taranaki Weekly Herald (M.)	"
Daily News (M.)	Daily.
Taranaki Herald (E.)	"
Taranaki News (M.)	Saturday.
Opunake—	
Opunake Times (E.)	Tuesday, Friday.
Stratford—	
Egmont Post (E.)	Tues., Thur., Sat.
Egmont Settler (E.)	Mon., Wed., Fri.
Waitara—	
Waitara Evening Mail and Clifton County Chronicle (E.)	" " "
NAPIER.	
Dannevirke—	
Dannevirke Advocate (E.)	Daily.
Dannevirke Daily Press (E.)	"
Hastings—	
Hastings Standard (E.)	"
Napier—	
Daily Telegraph (E.)	"
Hawke's Bay Herald (M.)	"
New Zealand Fire and Ambulance Record	Monthly.
Waipawa—	
Waipawa Mail (E.)	Tues., Thur., Sat.
Wairoa—	
Wairoa Guardian and County Advocate (M.)	Tuesday, Friday.
WANGANUI.	
Eltham—	
Eltham Argus and Daily Advertiser (E.)	Daily.
Eltham Guardian; Kaponga, Ngaire, Te Roti, Hawera, Stratford, and Cardiff Advertiser (M.)	Tues., Thur., Sat.
Hawera—	
Egmont Star (M.)	Saturday.
Hawera and Normanby Star, Patea County Chronicle, and Waimate Plains Gazette (E.)	Daily.
Hunterville—	
Hunterville Express, Hunterville, Ohingaiti, Moawhango, and Rata Advertiser (E.)	Tues., Thur., Sat.
Manaia—	
Waimate Witness (E.)	Mon., Wed., Fri.
Mangaweka—	
Settler (E.)	Tues., Thur., Sat.
Marton—	
Rangitikei Advocate and Manawatu Argus (E.)	Daily.
Patea—	
Patea County Press (E.)	Mon., Wed., Fri.
Raetihi—	
Waimarino Argus and Raetihi, Ohakune, Karioi, Pipiriki, and Upper Wanganui Advocate (M.)	Tuesday.

Wanganui—
- Jubilee (M.) .. .. Tuesday.
- New Zealand Good Templar Watchword (M.) .. .. Monthly.
- New Zealand Tit Bits (M.) .. .. .. Saturday.
- Wanganui Chronicle and Patea-Rangitikei Advertiser (M.) .. .. Daily.
- Wanganui Herald (E.) .. .. ,,
- Weekly Chronicle and Patea-Rangitikei Record (M.) .. Saturday.
- Yeoman (M.) .. .. Friday.

WELLINGTON.

Carterton—
- Wairarapa Leader (E.) .. .. Mon., Wed., Fri.
- Wairarapa Observer, Featherston Chronicle, East Coast Advertiser, and South County Gazette (E.) .. Tues., Thur., Sat.

Eketahuna—
- Eketahuna Express and North Wairarapa Courier (E.) .. ,, ,, ,,
- Farmers Friend (M.) .. .. Monthly (1st).

Feilding—
- Feilding Star (E.) .. .. Daily.

Foxton—
- Manawatu Herald (E.) .. .. Tues., Thur., Sat.

Greytown North—
- Te Puke ki Hikurangi (E.) .. .. .. Tues., fortnightly.
- Wairarapa Standard and Featherston Advocate (E.) .. Mon., Wed., Fri.

Levin—
- Manawatu Farmer and Horowhenua County Chronicle (E.) ,, ,, ,,

Masterton—
- Wairarapa Daily Times (E.) .. .. .. Daily.
- Wairarapa Star (E.) .. .. ,,
- Weekly Star and Wellington District Advertiser (M.) .. Thursday.

Otaki—
- Otaki Mail and Horowhenua County and West Coast Advertiser (M.) .. .. Tues., Thur., Sat.

Pahiatua—
- Pahiatua Herald (E.) .. .. Mon., Wed., Fri.

Palmerston North—
- Manawatu Daily Standard, Rangitikei Advertiser, and West Coast Gazette (E.) .. .. .. Daily.
- Manawatu Daily Times (E.) .. .. .. ,,

Petone—
- Hutt and Petone Chronicle (E.) .. .. .. Tuesday, Friday.

Wellington—
- Advocate (M.) .. .. Tuesday.
- Church Chronicle (M.) .. .. Monthly.
- Evening Post (E.) .. .. Daily.
- Mercantile Record (M.) .. .. Saturday.
- New Zealand Craftsman (M.) .. .. .. Monthly.
- New Zealand Cyclists' Touring Club Gazette (M.) .. ,,
- New Zealand Dairyman and Dairy Messenger (E.) .. ,,
- New Zealand Field (M.) .. .. .. Friday.
- New Zealand Free Lance (M.) .. .. .. Saturday.
- New Zealand Insurance, Finance, and Mining Journal (M.) Monthly.
- New Zealand Mail, Town and Country Advertiser (M) .. Friday.
- New Zealand Mines Record (M.) .. .. .. Monthly.
- New Zealand Times (M.) .. .. .. Daily.
- Register and Property Investors' Guide (M). .. .. Monthly.
- Wellington Price Current and New Zealand Trade Review (M.) .. .. ,,

Woodville—
- Woodville Examiner (E.) .. .. .. Mon., Wed., Fri.

	BLENHEIM.	
Blenheim—		
Marlborough Daily Times and Town and Country Advertiser (M.)	.. ..	Daily.
Marlborough Express (E.)	.. .. ..	"
Havelock—		
Pelorus Guardian and Miners' Advocate (M.)	.. ..	Tuesday, Friday.
Picton—		
Marlborough Press, County of Sounds Gazette (M.)	..	" "
	NELSON.	
Brightwater—		
Brightwater Independent Chronicle (M.)	.. ..	Thursday.
Collingwood—		
Golden Bay Argus (E.)	.. ..	"
Motueka—		
Motueka Star (E)	.. ..	Tuesday, Friday.
Nelson—		
Colonist (M.)	.. ..	Daily.
Nelson Evening Mail (E.)	.. .. ..	"
Takaka—		
Takaka News and Collingwood Advertiser (E.)	..	Thursday.
	WESTPORT.	
Charleston—		
Charleston Herald, Brighton Times, and Croninville Reporter (M.)	.. ..	Wed., Saturday.
Murchison—		
Buller Post (E.)	.. ..	Tuesday.
Westport—		
Buller Miner (M.)	.. ..	Friday.
Westport News (M.)	.. ..	Daily.
Westport Times and Evening Star (E.)	.. ..	"
	GREYMOUTH.	
Greymouth—		
Evening Star and Brunnerton Advocate (E.)	.. ..	Daily.
Grey River Argus (M.)	.. ..	"
Weekly Argus (M.)	.. ..	Weekly.
Reefton—		
Inangahua Herald and New Zealand Miner (M.)	..	Daily.
Inangahua Times and Reefton Guardian (E.)	.. ..	"
	HOKITIKA.	
Hokitika—		
Hokitika Guardian and Evening Star (E.)	.. ..	Daily.
Leader (M.)	.. ..	Saturday.
West Coast Times (M.)	.. ..	Daily.
Kumara—		
Kumara Times and Dillman's and Goldsborough Advertiser (M.)	.. ..	Daily.
Ross—		
Ross and Okarito Advocate and Westland Advertiser (M.)		Wed., Saturday.
	CHRISTCHURCH.	
Akaroa—		
Akaroa Mail and Banks Peninsula Advertiser (M.)	..	Tuesday, Friday.
Ashburton—		
Ashburton Guardian (E.)	.. .. ..	Daily.
Ashburton Mail, Rakaia, Mount Somers, and Alford Forest Advertiser (M.)	.. ..	Tues., Thur., Sat.
Ashburton Standard and Farmers' Advocate (M.)		Mon., Wed., Fri.
Cheviot—		
Cheviot News (M.)	.. ..	Tuesday, Friday.

Christchurch—	
Canterbury Times (M.)	Wednesday.
Lyttelton Times (M.)	Daily.
Mercantile and Bankruptcy Gazette of New Zealand (E.)	Wednesday.
New Zealand Baptist	Monthly.
New Zealand Church News (M.)	"
New Zealand Fanciers' Chronicle (M.)	"
New Zealand Railway Review	"
New Zealand Schoolmaster (E.)	"
New Zealand War Cry and Official Gazette of the Salvation Army (M.)	Saturday.
New Zealand Wheelman (M.)	Wednesday.
Press (M.)	Daily.
Prohibitionist	Fri., fortnightly.
Spectator (M.)	Tuesday.
Sportsman and New Zealand Cyclist (M.)	Wednesday.
Star (E.)	Daily.
Truth (E.)	"
Weekly Press (incorporating "The Referee") (M.)	Wednesday.
East Oxford—	
Oxford Observer (M.)	Saturday.
Kaikoura—	
Kaikoura Star and North Canterbury and South Marlborough News (E.)	Daily.
Rangiora—	
Rangiora Standard and North Canterbury Guardian (M.)	Wed., Saturday.
Southbridge—	
Ellesmere Guardian (M.)	" "

TIMARU.

Temuka—	
Geraldine Guardian (M.)	Tues., Thur., Sat.
Temuka Leader (M.)	" " "
Timaru—	
Timaru Herald (M.)	Daily.
Timaru Post (E.)	"
Waimate—	
Waimate Advertiser (M.)	Saturday.
Waimate Times (M.)	Tues., Thur., Sat.

OAMARU.

Oamaru—	
North Otago Times (M.)	Daily.
Oamaru Mail (E.)	"

DUNEDIN.

Alexandra South—	
Alexandra Herald and Central Otago Gazette (M.)	Thursday.
Balclutha—	
Clutha Leader (M.)	Tuesday, Friday.
Free Press (M.)	" "
Clyde—	
Dunstan Times, Vincent County Gazette, and General Goldfields Advertiser (M.)	Friday.
Cromwell—	
Cromwell Argus and Northern Goldfields Gazette (M.)	Tuesday.
Dunedin—	
Evening Star (E.)	Daily.
Farmers' Circular (M.)	Thur., fortn'ly
Katipo	Monthly.
New Zealand Guardian (M.)	"
New Zealand Journal of Education	"
New Zealand Mining and Engineering Journal (M.)	Thursday.

Dunedin—*continued.*	
New Zealand Tablet (M.)	.. Friday.
Otago Daily Times (M.)	.. Daily.
Otago Witness (M.)	.. Thursday.
OtagoLiberal and Workman (M)	.. Saturday
Outlook (M.)	.. "
Schoolmates	.. Monthly.
Temperance Standard	.. "
Trade Review and Farmers' Gazette (M.)	.. Thursday.
Triad (M.)	.. Monthly.
Weekly Budget (M.)	.. Saturday.
Lawrence—	
Tuapeka Times (M.)	.. Wed., Saturday.
Milton—	
Bruce Herald (M.)	.. Tuesday, Friday.
Mosgiel—	
Taieri Advocate (M.)	.. Wed., Saturday.
Naseby—	
Mount Ida Chronicle (E.)	.. Friday (twice).
Palmerston—	
Palmerston and Waikouaiti Times (M.)	.. Friday.
Roxburgh—	
Mount Benger Mail (M.)	.. Saturday.
Tapanui—	
Tapanui Courier and Central Districts Gazette (M.)	.. Wednesday.

INVERCARGILL.

Arrowtown—	
Lake County Press (E.)	.. Thursday.
Gore—	
Mataura Ensign (E.)	.. Tues., Thur., Sat.
Southern Standard (M.)	.. Tuesday, Friday.
Invercargill—	
Southern Cross (M.)	.. Saturday.
Southlander (M.)	.. Friday.
Southland Daily News (E.)	.. Daily.
Southland Times (M.)	.. "
Weekly Times (M.)	.. Friday.
Queenstown—	
Lake Wakatipu Mail (E.)	.. "
Riverton—	
Western Star and Wallace County Gazette (E.)	.. Tues., Thur., Sat.
Winton—	
Winton Record and Hokonui Advocate (M.)	.. Friday.
Wyndham—	
Wyndham Farmer (M.)	.. Mon., Wed., Fri.
Wyndham Herald (M.)	.. Tuesday, Friday.

The foregoing towns are arranged according to the postal district in which they are situated.

Taking the provincial districts, Auckland has 43 publications registered as newspapers, Taranaki 16, Hawke's Bay 9, Wellington 43, Marlborough 4, Nelson 14, Westland 8, Canterbury 31, and Otago 43.

THE CUSTOMS TARIFF OF NEW ZEALAND,

Under the Customs and Excise Duties Acts, 1888 and 1895, "The Tobacco Excise Duties Act, 1896," and "The Customs Duties Amendment Act, 1900."

TABLE OF DUTIES.

THE headings of the respective classes in this Table and in the Table of Exemptions are used solely for convenience of classification, and shall not in any way affect the articles specified therein, or be construed to indicate the material of which any such article is made.

The word "iron" includes steel, or steel and iron combined.

Neither steam-engines, nor parts of steam-engines, nor steam-boilers (land or marine) are included in the expression "machines" or "machinery" in either this Table or the Table of Exemptions.

The abbreviaton "n.o.e." means not otherwise enumerated.

In computing "ad valorem" duties the *invoice* value of the goods is increased by 10 per cent.

CLASS I.—FOODS AND ARTICLES FOR HUMAN CONSUMPTION.

Names of Articles and Rates of Duty.

1. Almonds, in shell, 2d. the lb.
2. Almonds, shelled, n.o.e., 3d. the lb.
3. Bacon and hams, 2d. the lb.
4. Biscuits, ships' plain and unsweetened, 3s. the cwt.
5. Biscuits, other kinds, 2d. the lb.
6. Boiled sugars, comfits, lozenges, Scotch mixtures, and sugar-candy, 2d. the lb., including internal packages.
7. Candied peel and drained peel, 3d. the lb.
8. Capers, caraway seeds, catsup, cayenne pepper, chillies, chutney, curry-powder and -paste, fish-paste, gelatine, isinglass, liquorice, olives, 20 per cent. *ad valorem.*
9. Chocolate confectionery, and all preparations of chocolate or cocoa—
   In plain trade packages, 3d. the lb.
   In fancy packages, or in small packages for retail sale, 20 per cent. *ad valorem.*
10. Confectionery n.o.e., 2d. the lb., including internal packages.
11. Currants, 1d. the lb.
12. Fish, dried, pickled, or salted, n.o.e., 10s. the cwt.
13. Fish, potted and preserved, 2d. the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.
14. Fruit, fresh, viz.:—
    Apples, pears, plums, cherries, peaches, nectarines, medlars, apricots, quinces, tomatoes, 1d. the lb.
    (No duty exceeding ½d. the lb. to be levied on apples and pears from 14th July to 31st December.)
    Currants, raspberries, gooseberries, blackberries, and strawberries, ½d. the lb.
    Lemons, ½d. the lb.
15. Fruits, dried, 2d. the lb.
16. Fruits, preserved in juice or syrup, 25 per cent. *ad valorem.*
17. Fruit-pulp, and partially preserved fruit n.o.e., 1½d. the lb.
18. Fruits preserved by sulphurous acid, 1d. the lb.
19. Glucose, 1d. the lb.
20. Honey, 2d. the lb.
21. Jams, jellies, marmalade, and preserves, 2d. the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.

22. Jellies concentrated in tablets or powder, 4d. the lb.
23. Maizena and cornflour, ½d. the lb.
24. Meats, potted or preserved, 20 per cent. *ad valorem.*
25. Milk, preserved, 25 per cent. *ad valorem.*
26. Mustard, 2d. the lb.
27. Nuts of all kinds, except cocoa-nuts, 2d. the lb.
28. Oysters, preserved, 2d. the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.
29. Pearl barley, 1s. the cwt.
30. Peas, split, 2s. the cwt.
31. Pickles, 3s. the imperial gallon.
32. Provisions, n.o.e., 20 per cent. *ad valorem.*
33. Raisins, 1d. the lb.
34. Rice-flour, 6s. the cwt.
35. Sardines, including the oil, 2d. the lb.
36. Sauces, 4s. the imperial gallon.
37. Spices, including pepper and pimento, unground, 2d. the lb.
38. Spices, including pepper and pimento, ground, 4d. the lb.
39. Sugar, ½d. the lb.
40. Treacle and molasses, ½d. the lb.
41. Vegetables, fresh, dried, or preserved, 20 per cent. *ad valorem.*
42. Vinegar, table, not exceeding 6·5 per cent. of acidity,* 6d. the gallon.

Class II.—Tobacco.

43. Cigarettes, not exceeding in weight 2½ lb. per 1,000, 17s. 6d. the 1,000. And for all weight in excess of 2½ lb. per 1,000, 6d. the oz.
44. Cigars, 7s. the lb.
45. Snuff, 7s. the lb.
46. Tobacco, 3s. 6d. the lb.
47. Tobacco, unmanufactured, entered to be manufactured in the colony in any licensed tobacco manufactory, for manufacturing purposes only, into tobacco, cigars, cigarettes, or snuff, 2s. the lb.

Class III.—Alcoholic Beverages, and Materials for Making Same.

48. Ale, beer of all sorts, porter, cider, and perry, the gallon, or for six reputed quart bottles, or 12 reputed pint bottles, 2s. the gallon.
49. Cordials, bitters, and liqueurs, 16s. the liquid gallon.
50. Hops, 6d. the lb.
51. Malt, 2s. the bushel.
52. Rice malt, 1d. the lb.
53. Solid wort, 6d. the lb.
54. Spirits and strong waters, the strength of which can be ascertained by Sykes's hydrometer, 16s. the proof gallon.
    (No allowance beyond 16·5 under proof shall be made for spirits or strong waters of a less hydrometer strength than 16.5 under proof.)
55. Spirits and strong waters, sweetened or mixed, when not exceeding the strength of proof, 16s. the liquid gallon.
56. Spirits and strong waters in cases shall be charged as follows, namely:—
    Two gallons and under, as two gallons; over two gallons and not exceeding three, as three gallons; over three gallons and not exceeding four, as four gallons; and so on for any greater quantity contained in any case.
57. Spirits or strong waters, mixed with ingredients in any proportion exceeding 33 per cent. of proof spirit, and although thereby coming under any other designation, excepting patent or proprietary medicines, or tinctures and medicinal spirits otherwise enumerated, 16s. the liquid gallon.

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* Vinegar exceeding 6·5 per cent. of acidity to be treated as acetic acid.

58. Wine, Australian, containing not more than 35 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 5s. the gallon.
59. Wine, other than sparkling and Australian, containing less than 40 per cent. of proof spirit verified by Sykes's hydrometer, the gallon, or for six reputed quart bottles, or twelve reputed pint bottles, 6s. the gallon.
60. Wine, sparkling, 9s. the gallon.

Class IV.—Non-alcoholic Beverages, and Materials for Making Same.

61. Aerated and mineral waters and effervescing beverages, 20 per cent. *ad valorem.*
62. Chicory, 3d. the lb.
63. Chocolate, 3d. the lb.
64. Cocoa, 3d. the lb.
65. Coffee, essence of, 20 per cent. *ad valorem.*
66. Coffee, roasted, 3d. the lb.
67. Syrups; lime- or lemon-juice sweetened; raspberry vinegar, 25 per cent. *ad valorem.*
68. Tea, 2d. the lb.

Class V.—Drugs, Medicines, Chemicals, and Druggists' Sundries.

69. Acid, acetic, n.o.e., containing not more than 30 per cent. of acidity, 1½d. the lb.
    For every 10 per cent. of acidity or fraction thereof additional, ½d. the lb.
70. Acid, tartaric, 1d. the lb.
71. Baking-powder, yeast preparations, and other ferments, 20 per cent. *ad valorem.*
72. Chemicals n.o.e., including photographic chemicals, and glacial acetic acid (B.P. standard), 15 per cent. *ad valorem.*
73. Cream of tartar, 1d. the lb.
74. Drugs and druggists' sundries and apothecaries' wares, n.o.e., 15 per cent. *ad valorem.*
75. Essences, flavouring, spirituous: 15 per cent. *ad valorem* until 1st February, 1896, and thereafter 16s. the liquid gallon.
76. Essences, flavouring, n.o.e., 15 per cent.
77. Eucalyptus oil, in bulk or bottle, 20 per cent. *ad valorem.*
78. Glycerine, refined, 20 per cent. *ad valorem.*
79. Opium, 40s. the lb.
80. Patent medicines, 15 per cent. *ad valorem.*
81. Proprietary medicines, or medicaments, (1) bearing the name of the proprietor on label or package; (2) bearing a prefixed name in the possessive case; (3) n.o.e., prepared by any occult secret or art, 15 per cent. *ad valorem.*
82. Saccharine, except in the form of tabloids or tablets, 1s. 6d. the ounce.
83. Sarsaparilla, 15 per cent. *ad valorem.*
84. Soda, carbonate and bicarbonate, 1s. the cwt.
85. Soda, crystals, 2s. the cwt.
86. Tinctures and medicinal spirits of any recognised pharmacopœia, containing more than 50 per cent. of proof spirit, 1s. the lb.
87. Tinctures and medicinal spirits of any recognised pharmacopœia, containing 50 per cent. proof spirit or less, 15 per cent. *ad valorem.*

Class VI.—Clothing and Textile Goods.

88. Apparel and ready-made clothing, and all articles n.o.e. made up wholly or in part from textile or other piece-goods, 25 per cent. *ad valorem.*

89. Apparel made by British or foreign tailors, dress-, mantle-, or jacket-makers to the order of residents in the colony, and intended for the individual use of such residents, whether imported by the residents themselves or through an importing firm, 40 per cent. *ad valorem.*
90. Blankets, 20 per cent. *ad valorem.*
91. Collars and cuffs, of paper or other material, 25 per cent. *ad valorem.*
92. Cotton counterpanes, 20 per cent. *ad valorem.*
93. Cotton piece-goods, to include turkey twills, dress prints (hard-spun and plain-woven), where the invoice value does not exceed 4d. the yard; and cotton piece-goods n.o.e., 10 per cent. *ad valorem.*
94. Cotton piece-goods—namely, tapestry; cretonnes; chintz art crêpe, and serges; velveteens, velvets, and plushes, all kinds; damasks; moquette; sateens; linenettes; crepons; crimps; zephyrs; ginghams; turkey twills; prints; printed cottons; piqués; vestings; quiltings, and marcellas; muslins of all kinds; nets; window-nets; hollands, curtains, and blinds; diapers; ticks, including coloured Belgian; towellings; laces, 20 per cent. *ad valorem.*
95. Drapery n.o.e., 20 per cent. *ad valorem.*
96. Feathers, ornamental (including ostrich), and artificial flowers, 25 per cent. *ad valorem.*
97. Forfar, dowlas, and flax sheeting, n.o.e., 20 per cent. *ad valorem.*
98. Furs, 25 per cent. *ad valorem.*
99. Haberdashery n.o.e., 20 per cent. *ad valorem.*
100. Hats of all kinds, including straw hats, also caps, 25 per cent. *ad valorem.*
101. Hosiery n.o.e., 20 per cent. *ad valorem.*
102. Lace, and laces, n.o.e., 25 per cent. *ad valorem.*
103. Millinery of all kinds, including trimmed hats, caps, and bonnets, 25 per cent. *ad valorem.*
104. Ribbons and crape, all kinds, 25 per cent. *ad valorem.*
105. Rugs, woollen, cotton, opossum, or other, 20 per cent. *ad valorem.*
106. Shawls, 20 per cent. *ad valorem.*
107. Silks, satins, velvets, plushes, n.o.e., composed of silk mixed with any other material, in the piece, 25 per cent. *ad valorem.*
108. Textile piece-goods other than cotton or silk, 20 per cent. *ad valorem.*
109. Umbrellas, parasols, and sunshades, 20 per cent. *ad valorem.*
110. Yarns n.o.e., 20 per cent. *ad valorem.*

Class VII.—Leather and Manufactures of Leather.

111. Boots, shoes, and slippers, n.o.e.; goloshes, clogs, pattens, vamps, uppers and laces, 22½ per cent. *ad valorem.*
112. Heel-plates, and toe-stiffeners and plates, 22½ per cent. *ad valorem.*
113. Leather—
    Leather belting, and belt-leather, harness, bridle, legging, bag, kip (other than East India), 4d. the lb.
    Buff and split, including satin hides and tweeds, 3d. the lb.
    Cordovan, levanted leather, roans, sheepskins, morocco n.o.e., basils, 3d. the lb.
    Sole-leather, 2d. the lb.
    East India kip, Persians, lambskins and goatskins (dressed other than morocco), kangaroo and wallabi skins (dressed), tan and coloured calf, 2d. the lb.
    Leather n.o.e., 1d. the lb.
114. Leather board or compo, 4d. the lb.
115. Leather bags and leather-cloth bags, n.o.e., 20 per cent. *ad valorem.*
116. Leather, chamois, 20 per cent. *ad valorem.*
117. Leather cut into shapes, 22½ per cent. *ad valorem.*
118. Leather leggings, 22½ per cent. *ad valorem.*
119. Leather manufactures n.o.e., 20 per cent. *ad valorem.*

120. Portmanteaux; trunks; travelling-bags and brief-bags of leather or leather-cloth, 10 in. in length and upwards, and carpet-bags, 25 per cent. *ad valorem.*
121. Saddlery, and harness, whips and whip-thongs, 20 per cent. *ad valorem.*

Class VIII.—Furniture and Household Furnishing.

122. Basket- and wicker-ware n.o.e., not being furniture, 20 per cent. *ad valorem.*
123. Carpets, and druggets; floorcloth; mats, and matting, 20 per cent. *ad valorem.*
124. Desks, 20 per cent. *ad valorem.*
125. Furniture and cabinetware, n.o.e., and other than iron, 25 per cent. *ad valorem.*
126. Furniture-, knife-, and plate-powder and polish, 20 per cent. *ad valorem.*
127. Mantelpieces, other than stone, 20 per cent. *ad valorem.*
128. Upholstery n.o.e., 25 per cent. *ad valorem.*

Class IX.—China, Glass, and Earthen Goods.

129. Bricks, known as firebricks, 20 per cent. *ad valorem.*
130. China, porcelain, and parianware, 20 per cent. *ad valorem.*
131. Drainage pipes and tiles, 20 per cent. *ad valorem.*
132. Earthen flooring and garden-tiles, 20 per cent. *ad valorem.*
133. Earthenware, stoneware, and brownware, 20 per cent. *ad valorem.*
134. Filters, 20 per cent. *ad valorem.*
135. Fireclay, ground, and fireclay goods, 20 per cent. *ad valorem.*
136. Glass, crown, sheet, and common window, 2s. the 100 superficial feet.
137. Glassware; also plate-glass, and glass polished, coloured, and other kinds, n.o.e.; globes and chimneys for lamps, 20 per cent. *ad valorem.*
138. Lamps, lanterns, and lampwick, 20 per cent. *ad valorem.*
139. Plate-glass, bevelled or silvered; mirrors and looking-glasses, framed or unframed, 25 per cent. *ad valorem.*

Class X.—Fancy Goods, Musical Instruments, etc.

140. Artificial flies, 25 per cent. *ad valorem.*
141. Cards, playing, 6d. per pack.
142. Clocks, 20 per cent. *ad valorem.*
143. Dressing-cases, 20 per cent. *ad valorem.*
144. Fancy goods, and toys, 20 per cent. *ad valorem.*
145. Fishing tackle, including artificially-baited hooks other than flies, 20 per per cent. *ad valorem.*
146. Jewellery; plate, gold or silver; greenstone, cut or polished, 20 per cent. *ad valorem.*
147. Mouldings in the piece for picture frames, cornices, or ceilings, 15 per cent. *ad valorem.*
148. Musical instruments of all kinds n.o.e., 20 per cent. *ad valorem.*
149. Oil, perfumed, 25 per cent. *ad valorem.*
150. Papier-maché ware, 20 per cent. *ad valorem.*
151. Perfumery n.o.e., 25 per cent. *ad valorem.*
152. Perfumed spirits and Cologne-water: £1 1s. the liquid gallon until the 1st February, 1896, and thereafter £1 10s. the liquid gallon.
153. Photographic goods n.o.e., 20 per cent. *ad valorem.*
154. Pictures, paintings, drawings, engravings, and photographs, framed or unframed; picture- or photograph-frames and -mounts, 20 per cent. *ad valorem.*
155. Platedware, 20 per cent. *ad valorem.*
156. Statues, statuettes, casts, and bronzes, 20 per cent. *ad valorem.*
157. Tobacco-pipes and -cases, cigar- and cigarette-holders and -cases, cigarette-papers and -cases, 25 per cent. *ad valorem.*
158. Toilet preparations n.o.e., 25 per cent. *ad valorem.*

159. Watches, 20 per cent. *ad valorem.*
160. Walking-sticks, 20 per cent. *ad valorem.*

Class XI.—Paper Manufactures and Stationery.

161. Calendars and show-cards, all kinds, 25 per cent. *ad valorem.*
162. Cardboard boxes complete, or cardboard cut and shaped for boxes (including match-boxes), 25 per cent. *ad valorem.*
163. Directories of New Zealand, or of any part thereof; also covers for directories, 25 per cent. *ad valorem.*
164. Handbills, programmes and circulars, playbills and printed posters, 20 per cent. *ad valorem.*
165. Ink, writing, 20 per cent. *ad valorem.*
166. Paper bags, coarse (including sugar-bags), 7s. 6d. the cwt.
167. Paper bags n.o.e., 25 per cent. *ad valorem.*
168. Paper-hangings, 15 per cent. *ad valorem.*
169. Paper wrapping—viz., blue candle, glazed cap, glazed casings, small hand, lumber hand, and tissue, 5s. the cwt.
170. Paper, wrapping, other kinds, including brown, cartridge, and sugar papers, 5s. the cwt.
171. Printing matter relating to patent or proprietary medicines; trade catalogues, price-lists, and fashion-plates of the goods of firms or persons in the colony, 25 per cent. *ad valorem.*
172. Stationery and writing-paper n.o.e., 20 per cent. *ad valorem.*
173. Stationery, manufactured—viz., account-books; manuscript books; bill-head, invoice, and statement forms; printed or ruled paper; counter-books; cheque- and draft-forms; tags; labels; blotting-pads; sketch-books; book-covers; copying letter-books; manifold writers; albums (other than for photographs); diaries; birthday-books; plain or faint-lined ruled books; printed window-tickets; printed, lithographed, or embossed stationery; and Christmas, New Year, birthday, and Easter cards and booklets, 25 per cent. *ad valorem.*
174. Stereotypes and matrices, 25 per cent. *ad valorem.*

Class XII.—Manufactures of Metal.

175. Bicycles, tricycles, and the like vehicles; also finished or partly finished or machined parts of same, n.o.e., including weldless steel tubing cut to short lengths, 20 per cent. *ad valorem.*
176. Boilers, land and marine, 20 per cent. *ad valorem.*
177. Brass cocks, valves, unions, lubricators, and whistles, 20 per cent. *ad valorem.*
178. Brass manufactures, n.o.e., 20 per cent. *ad valorem.*
179. Cartridges (shot), 10- to 24-bore, 1s. 6d. the 100.
180. Cartridge-cases, 9d. the 100.
181. Cartridges n.o.e., 20 per cent. *ad valorem.*
182. Cash-registering machines, 10 per cent. *ad valorem.*
183. Coffin-furniture, 20 per cent. *ad valorem.*
184. Composition-piping, 3s. 6d. the cwt.
185. Copper manufactures n.o.e., 20 per cent. *ad valorem.*
186. Copying-presses, 20 per cent. *ad valorem.*
187. Crab-winches, cranes n.o.e., capstans, and windlasses, 20 per cent. *ad valorem.*
188. Cutlery, 20 per cent. *ad valorem.*
189. Firearms, all kinds, 20 per cent. *ad valorem.*
190. Galvanised iron manufactures n.o.e., 25 per cent. *ad valorem.*
191. Gasometers, and other apparatus for producing gas; also gas-meters, 10 per cent. *ad valorem.*
192. Gaspipes, iron, 5 per cent. *ad valorem.*
193. Hardware, ironmongery, and holloware, 20 per cent. *ad valorem.*
194. Iron bridges, and iron material n.o.e. for the construction of bridges, wharves, jetties, or patent slips, 20 per cent. *ad valorem.*

195. Iron columns for buildings, and other structural ironwork, 20 per cent. *ad valorem.*
196. Iron doors for safes and vaults, 20 per cent. *ad valorem.*
197. Iron, galvanised corrugated sheets, screws, and nails, 2s. per cwt.
198. Iron galvanised tiles, ridging, guttering, and spouting, 20 per cent. *ad valorem.*
199. Iron gates and gate-posts, staples, standards, straining posts and apparatus, 20 per cent. *ad valorem.*
200. Iron nails, 2s. per cwt.
201. Iron pipes, and fittings for same, including main-cocks, 5 per cent. *ad valorem.*
202. Iron, plain galvanised sheet and hoop, 1s. 6d. the cwt.
203. Iron tanks, exceeding 200 gallons and not exceeding 400 gallons, 10s. each.
204. Iron tanks of and under 200 gallons, 5s. each.
205. Iron work and wire work, 20 per cent. *ad valorem.*
206. Japanned and lacquered metal ware, 25 per cent. *ad valorem.*
207. Lawn-mowers, 20 per cent. *ad valorem.*
208. Lead, in sheets, 1s. 6d. the cwt.
209. Lead piping, 3s. 6d. the cwt.
210. Machinery n.o.e., 20 per cent. *ad valorem.*
211. Machinery, electric, and appliances, 10 per cent. *ad valorem.*
212. Machinery for flour-mills, woollen-mills, paper-mills, rope- and twine-making, dredging, saw-milling, planing, oil-refining, boring; and also machinery for refrigerating or preserving meat, leather-splitting machines and band-knives for same, 5 per cent. *ad valorem.*
213. Manufactures, n.o.e., of metal, or of metal in combination with any other material, 20 per cent. *ad valorem.*
214. Nails n.o.e., 3s. the cwt.
215. Printing machines and presses, 5 per cent. *ad valorem.*
216. Pumps and other apparatus for raising water n.o.e., 20 per cent. *ad valorem.*
217. Railway and tramway plant and materials n.o.e., 20 per cent. *ad valorem.*
218. Sad-irons, 20 per cent. *ad valorem.*
219. Shot, 10s. the cwt.
220. Soda-water machines; also, machines for aerating liquids, 5 per cent. *ad valorem.*
221. Steam-engines and parts of steam-engines n.o.e., 20 per cent. *ad valorem.*
222. Steam-engines, and parts thereof, including the boiler or boilers therefor, imported specially for mining or gold-saving purposes and processes, or for dairying purposes, 5 per cent. *ad valorem.*
223. Tinware, and tinsmiths' furniture n.o.e., 25 per cent. *ad valorem.*
224. Waterworks pipes, iron, 5 per cent. *ad valorem.*
225. Weighbridges and weighing-machines, 20 per cent. *ad valorem.*
226. Wire mattresses and webbing, 20 per cent. *ad valorem.*
227. Zinc tiles, ridging, guttering, piping, 20 per cent. *ad valorem.*
228. Zinc manufactures n.o.e., 25 per cent. *ad valorem.*

Class XIII.—Timber, and Articles made from Timber.

229. Bellows, other than forge, 20 per cent. *ad valorem.*
230. Blocks, wooden tackle, 20 per cent. *ad valorem.*
231. Buckets and tubs, of wood, 20 per cent. *ad valorem.*
232. Carriages, carts, drays, wagons, and perambulators, and wheels for the same, 20 per cent. *ad valorem.*
233. Carriage shafts, spokes, and felloes, dressed; bent carriage timber, n.o.e., 20 per cent. *ad valorem.*
234. Doors, glazed with ornamental glass, 4s. each.
235. Doors, plain, 2s. each.
236. Sashes, glazed, with ornamental glass, 4s. the pair.
237. Sashes, plain, 2s. the pair.
238. Timber, palings, 2s. the 100.
239. Timber, posts, 8s. the 100.

240. Timber, railway, 4s. the 100.
241. Timber, sawn, dressed, 4s. the 100 ft. superficial.
242. Timber, sawn, rough, 2s. the 100 ft. superficial.
243. Timber, shingles and laths, 2s. the 1,000.
244. Woodenware and turnery n.o.e, and veneers, 20 per cent. *ad valorem.*

Class XIV.—Oils, Paints, etc.

245. Axle-grease, and other solid lubricants, 20 per cent. *ad valorem.*
246. Harness oil and composition, and leather dressing, 20 per cent. *ad valorem.*
247. Naphtha, 6d. the gallon.
248. Oil, linseed, 6d. the gallon.
249. Oil, mineral, including shale-waste or unrefined mineral-oil n.o.e., 6d. the gallon.
250. Oil n.o.e., 6d. the gallon.
251. Oil, olive, in bulk, 6d. the gallon.
252. Oil vegetable, in bulk, n.o.e., 6d. the gallon.
253. Oil vegetable or other, in bottle, 15 per cent. *ad valorem.*
254. Paints and colours ground in oil or turpentine, 2s. 6d. the cwt.
255. Paints and colours mixed ready for use, 5s. the cwt.
256. Putty, 2s. the cwt.
257. Stearine, 1½d. the lb.
258. Stearine for match-making, ¾d. the lb.
259. Varnish; enamel paints; gold size, 2s. the gallon.
260. Whiting and chalk, 1s. the cwt.

Class XV.—Agricultural and Farm Products, etc.

261. Animals, food for, of all kinds, n.o.e., 20 per cent. *ad valorem.*
262. Cattle (horned), 10s. each.
263. Chaff, £1 the ton.
264. Grain—namely, barley, 2s. the 100 lb.
265. Grain and pulse of every kind n.o.e., 9d. the 100 lb.
266. Grain and pulse of every kind, when ground or in any way manufactured, n.o.e., 1s. the 100 lb.
267. Horses, £1 each.
268. Linseed, £1 the ton.
269. Maize, 9d. the 100 lb.
270. Onions, £1 the ton.
271. Prepared calf-meal, £1 5s. the ton.

Class XVI.—Miscellaneous.

272. Bags, flour, 20 per cent. *ad valorem.*
273. Bags, calico, forfar, hessian, and linen, 20 per cent. *ad valorem.*
274. Bagging and bags n.o.e., 15 per cent. *ad valorem.*
275. Blacking and boot-gloss, 20 per cent. *ad valorem.*
276. Blacklead, 20 per cent. *ad valorem.*
277. Blue, 2d. the lb.
278. Brooms, brushes, and brushware, n.o.e., 25 per cent. *ad valorem.*
279. Brushes, hair, and combs; toilet- clothes- and hat-brushes, 20 per cent. *ad valorem.*
280. Candles, 1d. the lb. or package of that reputed weight, and so in proportion for packages of greater or less reputed weight.
281. Cement, 2s. the barrel.
282. Cordage and rope, n.o.e., 20 per cent. *ad valorem.*
283. Cork, cut, including bungs, 20 per cent. *ad valorem.*
284. Fireworks n.o.e., 20 per cent. *ad valorem.*
285. Flock, 10 per cent. *ad valorem.*
286. Glue and size, 1½d. the lb.
287. Granite, sawn on not more than two sides, and not dressed or polished, 5 per cent. *ad valorem.*

88. Marble, granite, and other stone, dressed or polished, and articles made therefrom, including mantelpieces, 25 per cent. *ad valorem.*
289. Matches—
Wooden, in boxes containing not more than 60 matches, 1s. the gross of boxes.
In boxes containing over 60 and not more than 100 matches, 2s. the gross of boxes.
In boxes containing more than 100 matches, for every 100 matches or fraction thereof contained in one box, 2s. the gross of boxes.
Wax, "plaid vestas" in cardboard boxes containing under 100 matches, 1s. the gross of boxes.
"Pocket vestas" in tin or other boxes containing under 100 matches, 1s. 4d. the gross of boxes.
"Sportsman's," "Ovals," and "No. 4 tin vestas," in boxes containing not more than 200 matches, 4s. 6d. the gross of boxes.
Wax, other kinds, for every 100 matches or fraction thereof contained in one box, 2s. 3d. the gross of boxes.
290. Nets and netting, 20 per cent. *ad valorem.*
291. Paraffin wax, ¾d. the lb.
292. Powder, sporting, 6d. the lb.
293. Sacks, other than cornsacks and jute sacks, 15 per cent. *ad valorem.*
294. Sausage-skins and casings (including brine or salt), 3d. per lb.
295. Soap, common yellow, and blue mottled, 5s. the cwt.
296. Soap, n.o.e., 25 per cent. *ad valorem.*
297. Soap-powder, extract of soap, dry soap, and soft-soap, 20 per cent. *ad valorem.*
298. Spirits, methylated, 1s the liquid gallon.
299. Spirits, cleared from warehouse, methylated, under prescribed conditions, 6d. the liquid gallon.
300. Starch, 2d. the lb.
301. Tarpaulins, tents, rick- and wagon-covers, 20 per cent. *ad valorem.*
302. Twine n.o.e., 20 per cent. *ad valorem.*
303. Washing-powder, 20 per cent. *ad valorem.*
304. Wax, mineral, vegetable, and Japanese, 1½d. the lb.

In addition to any duty chargeable by law on any goods imported into the colony, a further duty of 20 per cent. *ad valorem* shall be charged when the goods are prison-made.

TABLE OF EXEMPTIONS FROM DUTIES OF CUSTOMS.

CLASS I.—FOODS, ETC.

Names of Articles.

305. Almonds, Barbary, Sicily, and French, used in confectioners' manufactures.
306. Anchovies, salted, in casks.
307. Arrowroot, sago, tapioca, macaroni, vermicelli, and prepared groats.
308. Salt.
309. Rice, dressed or undressed.
310. Rice manufactured into starch in bond.

CLASS IV.—NON-ALCOHOLIC BEVERAGES, ETC.

311. Cocoa-beans.
312. Coffee, raw.

CLASS V.—DRUGS, ETC.

313. Acids—viz.: boracic; carbolic, in bulk; fluoric; muriatic; nitric; oxalic; oleic; picric; pyrogallic; salicylic; sulphuric.
314. Concentrated extracts or essences in liquid form or preserved in fat for perfume-manufacturing purposes in manufacturing warehouses, in bottles of not less than 1 lb. in weight.

315. Disinfectants.
316. Drugs and chemicals—viz.: alum; sulphate of aluminium; sulphate of ammonia; anhydrous ammonia; aniline dyes; arsenic; bluestone, or sulphate of copper; borax; catechu; chloride of calcium; nitrate of silver; cochineal; creosote, crude or commercial; glycerine, crude; gum, arabic and tragacanth; gum benzoin; artificial gum arabic; gum damar; phosphorus; potash, caustic potash, and chlorate of potash; pearlash; prussiate of potash; cyanide of potassium; cyanide of sodium; liquid chlorine; sal-ammoniac; saltpetre; acetate of soda, crude; soda-ash; caustic soda; nitrate of soda; silicate of soda; sulphate of soda; sulphide of sodium; hyposulphite of sodium; strychnine; sulphur; chloride of zinc; iron-sulphates; gall-nuts; turmeric; saffron; nitrous-oxide gas; tree-washes; insecticides; maltine; chlorodyne.
317. Essential oils, except eucalyptus; cod-liver oil; oil of rhodium.
318. Horse-drenches.
319. Medicinal barks, leaves, herbs, flowers, roots and gums.
320. Scrub-exterminator.
321. Sheep-dip; sheep-drenches; sheep-licks.
322. Surgical and dental instruments and appliances.
323. Scientific and assay balances, retorts, flasks, and other appliances for chemical analysis and assay work.
324. Water-hardening chemicals for brewers' use.

Class VI.—Clothing and Textiles.

325. Accoutrements for military purposes, excepting uniform clothing.*
326. Brace-elastic and brace-mountings.
327. Bunting, in the piece.
328. Butter- and cheese-cloth.
329. Buttons, tapes, wadding, pins, needles.
330. Calico, white and grey, also cotton sheetings, in the piece.
331. Corduroy, moleskin, and plain beaver-skin, of cotton, in the piece.
332. Coloured cotton shirtings; flannelette shirtings.†
333. Forfar, dowlas, and flax sheeting, when cut up under supervision in sizes not exceeding 47 in. x 36 in. for making flour-bags, and not exceeding 54 in. for lining wool mats.
334. Fur-skins, green or sun-dried.
335. Gold or silver lace or braid for military clothing.
336. Hatmakers' materials—viz.: silk plush; felt hoods; shellac; galloons; calicoes; spale-boards for hat-boxes; leathers and linings; blocks; moulds; frames; ventilators; and tassels.
337. Hessians, plain or striped, and scrim.
338. Leather-cloth.
339. Minor articles (required in the making-up of apparel, boots, shoes, hats, caps, saddlery, umbrellas, parasols, and sunshades), enumerated in any order of the Commissioner, and published in the *Gazette*.
340. Sailcloth, canvas, and unbleached double-warped duck, in the piece.
341. Sewing cottons, silks, and threads; crochet, darning, and knitting cottons; angola mendings not exceeding 45 yards, on cards.
342. Silk for flour-dressing.
343. Silk twist (shoemakers' and saddlers').
344. Staymakers' binding, eyelets, corset-fasteners, jean, ticks, lasting, sateen, and cotell.

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* Subject to the provisions of section 28 of "The Defence Act, 1900," as follows:—

Equipments to be admitted free of Customs Duty.

28. All military clothing, saddlery, and equipments imported into the colony for the *bonâ fide* use of a Volunteer corps shall, on the certificate in writing of the Minister of Defence that the same are or have been imported for such purpose, be admitted into the colony free of Customs duty.

† See note on page 93.

345. Tailors' trimmings—viz.: plain-coloured imitation hair-cloth; canvas; plain Verona and plain diagonal, and such patterns of checked Italian cloth as may be approved of by the Commissioner of Customs; Italian cloth of cotton or wool; buckram; wadding and padding; silk, worsted, and cotton bindings and braids; stay-bindings; Russia braids; shoulder-pads; buckles; silesias; drab, slate, and brown jeans; pocketings; slate, black, and brown dyed unions and linens.
346. Umbrella-makers' materials—viz.: reversible and levantine silk mixtures, gloria, and satin de chêne of not less than 44 in. in width; alpaca cloth, with border; zanella cloth, with border; also other piece-goods on such conditions as the Commissioner may approve; sticks, runners, notches, caps, ferrules, cups, ribs, stretchers, tips, and rings.
347. Union shirtings the invoice value of which does not exceed 6d. the yard.*
348. Waterproof material in the piece.

CLASS VII.—LEATHER, AND ARTICLES USED IN LEATHER MANUFACTURES.

349. Boot elastic.
350. Bootmakers' linings, canvas, plain or coloured, bag and portmanteau linings, of such materials, qualities, and patterns as may be approved by the Commissioner.
351. Boots, shoes, and slippers—viz., children's, No. 0 to 3.
352. Cork soles, and sock soles.
353. East India kip, crust or rough-tanned, but undressed.
354. Goatskins, crust or rough-tanned, but undressed.
355. Grindery, except heel- and toe-plates.
356. Hogskins.
357. Kangaroo-, wallabi-skins, undressed.
358. Leather, japanned or enamelled; goatskins, dressed as morocco, coloured (other than black).
359. Saddle-trees.
360. Saddlers' ironmongery (except bits and stirrup-irons), hames, and mounts for harness; straining, surcingle, brace, girth, and roller webs; collar-check, and the same article plain, of such quality as may be approved by the Commissioner; legging-buckles.
361. Tanning materials, crude.

CLASS VIII.—FURNITURE, ETC.

362. Blind-webbing and tape.
363. Upholsterers' webbing, hair-seating, imitation hair-seating; curled hair; gimp and cord of wool, cotton, or silk; tufts, and studs.

CLASS IX.—CHINA, GLASS, ETC.

364. Bottles, empty, plain glass, not being cut or ground; also, jars up to 3 in. in diameter at the mouth.
365. Glass plates (engraved) for photo-lithographic work.
366. Jars or other dutiable vessels, containing free goods or goods subject to a fixed rate of duty, and being ordinary trade packages for the goods contained in them.

CLASS X.—FANCY GOODS, ETC.

367. Action-work and keys, in frames or otherwise, for manufacture of organs, harmoniums, and pianos; organ-pipes and stop-knobs.
368. Artists' canvas, colours, brushes, and palette knives.

* Whenever any dispute arises as to the application of the exemption in favour of coloured cotton, flannelette, or union shirtings, in the case of fabrics alleged to be such shirtings, the Commissioner has power to decide such dispute; and in case of doubt on his part, he may require the fabric in dispute to be cut up for shirt-making, under such conditions as he prescribes.

369. Magic lanterns, lenses, and slides.
370. Microscopes and astronomical telescopes, and lenses for same.
371. Musical instruments, specially imported for Volunteer bands.
372. Paintings, statuary, and works of art, presented to or imported by any public institution or art association registered as a body corporate, for display in the buildings of such institution or association, and not to be sold or otherwise disposed of.
373. Photographic cameras and lenses.
374. Photographs of personal friends in letters or packets.
375. Precious stones, cut or uncut and unmounted.
376. Sensitized surfaces for photographic purposes.

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CLASS XI.—PAPER, ETC.

377. Bookbinders' materials—viz., cloth, leather, thread, headbands, webbing, end-papers, tacketing-gut, marbling-colours, marble-paper, blue paste for ruling-ink, staple presses, wire-staples, staple-sticks.
378. Butter-paper, known as parchment paper or waxed paper.
379. Cardboard and pasteboard, of sizes not less than that known as "royal."
380. Cardboard boxes, material for—viz., gold and silver paper, plain and embossed, gelatine and coloured papers, known as "box-papers."
381. Cartridge-paper for drawing-books.
382. Cloth-lined boards, not less than "royal."
383. Cloth-lined papers, enamelled paper; ivorite and gelatine; metallic paper, not less than "demy."
384. Copy-books and drawing-books.
385. Copying-paper, medium and double-foolscap, in original mill wrappers and labels.
386. Hand-made cheque-paper.
387. Ink, printing.
388. Masticated para.
389. Millboard, and bookbinders' leather-board.
390. Paper, hand-made or machine-made book or writing, of sizes not less than the size known as "demy," when in original wrappers.
391. Printing-paper.
392. Printed books, papers, and music, n.o.e.
393. School slates, and educational apparatus.

CLASS XII.—METALS.

394. All machinery for agricultural purposes, including chaff-cutters, corn-crushers; corn-shellers, also articles used in manufacturing the same—viz., chaff-cutting knives, tilt-rakes, fittings for threshing-mills, forgings for ploughs.
395. All agricultural implements.
396. All bolts and nuts, blank or screwed nuts, black or finished nuts.
397. Anchors.
398. Artificers' tools.
399. Axes and hatchets; spades, shovels, and forks; picks; mattocks; quartz and knapping-hammers; scythes, sheep-shears, reaping-hooks; soldering-irons; paperhangers' scissors; butchers' saws and cleavers.
400. Axles, axle-arms, and boxes.
401. Band-saws and folding-saws, including frames.
402. Bellows-nails.
403. Bicycles and tricycles, fittings for—viz., rubber-tires, pneumatic-tires, outside covers, and inner tubes; rubber and cork handles, and pedal-rubbers; also drop-forgings and stampings, ball-bearings, weldless steel tube in full lengths, rims, forks, and spokes, in the rough.
404. Blacksmiths' anvils, forges, and fans.
405. Blowers.
406. Brass and copper, in pigs, bars, tubes, or sheets.

407. Brass tubing and stamped work, in the rough, for gasaliers and brackets.
408. Caps, percussion.
409. Card-clothing for woollen-mills.
410. Chain pulleys, and chains for same.
411. Chains, trace and plough chains; or metal articles required to repair or complete riding or driving harness or saddlery to be repaired or made in the colony.
412. Chamfering, crozing and howelling machine for cask-making.
413. Copper and composition, rod, bolts, sheathing, and nails.
414. Couch-roll jackets, machine-wires, beater-bars, and strainer-plates for paper-mills.
415. Crucibles.
416. Emery-grinding machines and emery-wheels.
417. Empty iron drums, not exceeding 10 gallons capacity.
418. Engineers', boilermakers', brass-finishers', smiths', and all metal- and wood-workers' machine and hand tools.
419. Engine governors.
420. Eyelets.
421. Fire-engines, including Merryweather's chemical fire-engines.
422. Fish-hooks.
423. Galvanising-baths, welded.
424. Gas-engines and hammers, and oil-engines.
425. Glassmakers' moulds.
426. Hydraulic cranes.
427. Iron- and brass-wove wire and wire gauze; also wire netting.
428. Iron boiler-plates and unflanged end-plates for boilers; boiler-tubes not exceeding 6 in. in diameter, and unflanged; Bowling's expansion rings; furnace-flues.
429. Iron, plain black sheet, rod, bolt, bar, plate, hoop, and pig.
430. Iron rolled girders.
431. Iron plates, screws, and castings for ships.
432. Iron wire n.o.e., including fencing-wire, plain and barbed.
433. Lead, in pigs and bars.
434. Locomotives.
435. Machine saws.
436. Machinery exclusively for the purpose of the manufacture of beet-root sugar.
437. Machinery for dairying purposes.
438. Machinery of every description for mining purposes, including machine pumps, but not including machinery for dredging.
439. Machinery for gold-saving purposes and processes.
440. Metal fittings for trunks, portmanteaux, travelling-bags, leggings, bags, and satchels.
441. Metal sheaves for blocks.
442. Metallic capsules.
443. Perambulators and the like vehicles, fittings for n.o.e.
444. Perforated or cellular sheet zinc or iron.
445. Portable engines on four or any greater number of wheels, with boiler of locomotive type; also traction-engines.
446. Printing type and materials n.o.e.
447. Rails for railways and tramways.
448. Reapers and binders, and reaping and mowing machines, and extra parts for same; materials for manufacturing agricultural machinery, namely, reaper-knife sections, fingers, brass and steel springs, malleable castings, discs for harrows, mould-boards and plough-shares, mould-board plates, and steel-share plates cut to pattern, skeith-plates; ploughs and harrows combined threshers.
449. Riddles and sieves.
450. Rivets and washers.
451. Separators and coolers for dairying purposes.
452. Set-screws, engineers' studs, and split-pins.

453. Sewing-, knitting-, and kilting-machines.
454. Spiral springs (except sofa- and mattress-springs).
455. Steam and hydraulic pressure and vacuum gauges.
456. Steel rams, black or finished, for hydraulic cranes or jiggers.
457. Surveyors' steel bands and measuring-tapes.
458. Swords.
459. Tacks of all kinds.
460. Tea-packing lead.
461. Tin, in pigs, bars, or sheets.
462. Tinsmiths' fittings, including stamped or blocked tin, planished or unplanished.
463. Tins, tops of, ornamented.
464. Welded and flanged boiler-furnaces, plain or corrugated.
465. Wire, of brass, copper, or lead.
466. Zinc, plain sheet.
467. Zinc plates and copper plates for photo-lithographic work.

Class XIII.—Timber, etc.

468. Ash, hickory, and lancewood timber, unwrought.
469. Blacksmiths' bellows.
470. Brush woodware.
471. Carriage- and cart-shafts, spokes and felloes in the rough; hubs, of all kinds; poles if unbent and unplaned, of all kinds; bent wheel-rims.
472. Carriage- and cart-makers' materials—viz.: springs, mountings, trimmings, brass hinges, tire-bolts, shackle-holders, step treads, and other iron fittings (except steps, lamp-irons, dash-irons, seat-rails, and fifth wheels), rubber-cloth.
473. Churns.
474. Lignum-vitæ.
475. Sieves, hair.
476. Wooden handles for tools.

Class XIV.—Oils, etc.

477. Benzine in bulk.
478. Oils—viz.: candlenut, fish, kerosene, penguin, palm, seal, whale.
479. Paints and colours n.o.e.
480. Shale oil, once run, suitable for gas-making.
481. Spirits of tar.
482. Turpentine, driers, and terebene.

Class XV.—Miscellaneous.

483. Apparatus and appliances solely for teaching purposes, as may be approved by the Commissioner.
484. Bags made of New Zealand tow or flax.
485. Belting for machinery, other than leather.
486. Binder-twine.
487. Bricks, other than fire-bricks.
488. Building materials n.o.e.
489. Brushes for cream-separators and combined screens.
490. Candlenuts and candlenut kernels.
491. Candle-wick.
492. Canvas aprons and elevators for reapers and binders.
493. Carpenters' baskets.
494. Charts and maps.
495. Confectioners' moulding-starch.
496. Cotton waste.
497. Dye-stuffs and dyeing materials, crude.
498. Felt sheathing.

499. Food preservative n.o.e.
500. Gum boots.
501. Hawsers of 12 in. and over.
502. Honey and brown Windsor soap composition.
503. Iron and steel cordage.
504. Jute bagging, bags, and sacks.
505. Manures.
506. Marble, and other stone, hewn or rough sawn, not dressed or polished.
507. Netmakers' cotton twine.
508. Official supplies for consular officers of countries where a similar exemption exists in favour of British Consuls.
509. Papermakers' felts.
510. Passengers' baggage and effects, including only wearing-apparel and other personal effects that have been worn or are in use by persons arriving in the colony; also implements, instruments, and tools of trade, occupation, or employment of such persons; and household or other effects not exceeding £100 in value, which have been in use for twelve months prior to embarkation by the persons or families bringing them to the colony, and not intended for any other person or persons or for sale; also cabin-furnishings belonging to such persons.
511. Plaster of Paris.
512. Powder, blasting and meal.
513. Ship-chandlery n.o.e.
514. Ships' rockets, blue-lights, and danger-signals.
515. Spirits for manufacturing perfumed spirit, flavouring essences, and culinary essences in manufacturing warehouses. This exemption to cease on the 1st day of February, 1896.
516. Stones, mill- grind- oil- and whet-.
517. Tobacco for sheepwash or for insecticide, after being rendered unfit for human consumption to the satisfaction of the Commissioner.
518. Treacle or molasses, mixed with bone-black in proportions to the satisfaction of the Commissioner.
519. Tubular woven cotton-cloth in the piece, for meat wraps.
520. Type-writers.
521. Wax, bottling.
522. Woolpacks and woolpockets.
523. Yarn—viz.: coir, flax, hemp.
524. Articles and materials (as may from time to time be specified by the Commissioner) which are suited only for, and are to be used solely in, the fabrication of goods within the colony. All decisions of the Commissioner in reference to articles so admitted free to be published from time to time in the *Gazette*.
525. And all articles not otherwise enumerated.

Table of Excise Duties.

526. Tobacco, 1s. the lb.*
527. Cigars, cigarettes, and snuff, 1s. 6d. the lb.*
528. Beer, 3d. the gallon.

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* "The Tobacco Excise Duties Act, 1896," section 2, enacts:—

"On and after the thirty-first day of December, one thousand eight hundred and ninety-six, section three of "The Customs and Excise Duties Act, 1891," shall be deemed to be repealed, and in lieu of the duties imposed by that section there shall be levied, collected, and paid, on and after that day, upon tobacco manufactured in the colony, at the time of making the entry for home consumption thereof, the several duties of excise following, that is to say—

"On tobacco	... One shilling the pound.
"On cigars and snuff	... One shilling and sixpence the pound.
"On cigarettes—	
If manufactured by machinery ...	... Two shillings and sixpence the pound
If made by hand	... One shilling the pound."

529. Articles in which spirit is a necessary ingredient, manufactured in a warehouse appointed under section 26 of "The Customs Laws Consolidation Act, 1882," namely—
Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing more than 50 per cent. of proof spirit, 9d. the lb.
Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing less than 50 per cent. of proof spirit, 3d. the lb.
Culinary and flavouring essences, 12s. the liquid gallon, from 1st February, 1896.
Perfumed spirit, 20s. the liquid gallon, from 1st February, 1896.
" Toilet preparations which are subject to 16s. the liquid gallon on importation, 12s. the liquid gallon.
Toilet preparations which are subject to 25 per cent. duty on importation, 6s. the liquid gallon.

Duties imposed by His Excellency the Governor under Section 17 of "The Customs and Excise Duties Act, 1888."

530. Olive stones, ground (see *New Zealand Gazette*, 15th May, 1890), 4d. the lb.
531. Brewers' caramel (see *New Zealand Gazette*, 21st August, 1890), 3d. the lb.
532. Liquid hops (see *New Zealand Gazette*, 21st December, 1893), 6s. the lb.
533. The United Asbestos Patent Salamander Decorations (see *New Zealand Gazette*, 14th May, 1896), 15 per cent. *ad valorem*.
534. Matches of any material other than wood or wax, a duty corresponding to the duty payable on wooden matches (see *New Zealand Gazette*, 27th April, 1899).
535. Fibre conduit pipes and fittings for same (see *New Zealand Gazette*, 4th May, 1899), 5 per cent. *ad valorem*.
536. Caramel cereal (see *New Zealand Gazette*, 14th March, 1900), ½d. the lb.
537. Compo-board (see *New Zealand Gazette*, 12th December, 1900), 4s. the 100 ft. super.

The "Opium Prohibition Act, 1901," makes it unlawful for any person to import opium into the colony in any form suitable for smoking. Permits may be issued by the Commissioner of Trade and Customs for the importation of the drug in the following forms:—

Opium, crude.
Opium, in powder.
Opium, extract of, solid.

No permit shall be issued to any person of the Chinese race. Heavy penalties are prescribed for breaches of the above law.

"The Timber Export Act, 1901," authorised the collection, by Order in Council, of the following duties:—

SCHEDULE.

Logs, round	3s. per 100 superficial feet.	Or such lesser duty as the Governor by Order in Council determines.
Logs, squared with axe or saw..		
Half logs		
Flitches of any particular kind, or pieces of such size as the Governor by Order in Council from time to time determines	3s. per 100 superficial feet	Or such lesser duty as the Governor by Order in Council determines.

An Order in Council dated the 27th March, 1902, directs that there shall be levied, collected, and paid previous to exportation from New Zealand, duties upon white pine and kahikatea timber as under :—

Logs, round	3s. per 100 superficial feet.
Logs, cut in half	" "
Logs, squared with axe or saw, 10 in. by 10 in. or its equivalent, or over	" "
Flitches, any width, and not exceeding 10 in. thick,	2s. per 100 superficial feet.

A further Order in Council, dated 10th April, 1902, directs that duties on kauri timber shall be charged as under :—

Logs, round	3s. per 100 superficial feet.
Logs, cut in half	" "
Logs, squared with axe or saw	" "
Flitches, exceeding 30 in. in width and 9 in. in thickness	2s. per 100 superficial feet.

FEES PAYABLE UNDER LAND TRANSFER ACT.

FEES PAYABLE TO DISTRICT LAND REGISTRARS UNDER "THE LAND TRANSFER ACT, 1885."

	£	s.	d.
For the bringing land under the provisions of this Act (over and above the cost of advertisements)—			
When the title consists of a Crown grant, and none of the land included therein has been dealt with	0	2	0
When the title is of any other description and the value exceeds £300	1	0	0
When the title is of any other description and the value exceeds £200 and does not exceed £300	0	15	0
When the title is of any other description and the value exceeds £100 and does not exceed £200	0	10	0
When the title is of any other description and when the value does not exceed £100	0	5	0
Contribution to the Assurance Fund upon first bringing land under the Act,—			
In the pound sterling	0	0	0½
Other fees—			
For every application to bring land under the Act	0	5	0
For every certificate of title on transfer where the consideration does not exceed £100	0	10	0
For every other certificate of title	1	0	0
Registering memorandum of transfer, mortgage, incumbrance, or lease	0	10	0
Registering transfer or discharge of mortgage or of incumbrance, or the transfer or surrender of a lease	0	5	0
Registering proprietor of any estate or interest derived by settlement or transmission	0	10	0
For every power of attorney deposited	0	10	0
For every registration abstract	1	0	0
For cancelling registration abstract	0	5	0
For every revocation order	0	10	0
Noting caveat	0	10	0
Cancelling or withdrawal of caveat, and for every notice relating to any caveat	0	5	0
For every search	0	2	0
For every general search	0	5	0

Other fees—*continued.*	£	s.	d.
For every map or plan deposited	0	5	0
For every instrument declaratory of trusts, and for every will or other instrument deposited	0	10	0
For registering recovery by proceeding in law or equity or re-entry by lessee	0	10	0
For registering vesting of lease in mortgagee, consequent on refusal of Trustee in Bankruptcy to accept the same	0	10	0
For entering notice of marriage or death	0	10	0
For entering notice of writ or order of Supreme Court	0	10	0
Taking affidavit or statutory declaration	0	5	0
For the exhibition of any deposited instrument, or for exhibiting deeds surrendered by applicant proprietor	0	5	0
For certified copy, not exceeding five folios	0	5	0
For every folio or part folio after first five	0	0	6
For every notice to produce deeds or instruments	0	5	0
For every outstanding interest noted on certificate of title	0	5	0
When any instrument purports to deal with land included in more than one grant or certificate, for each registration memorial after the first	0	2	0

Regulations.

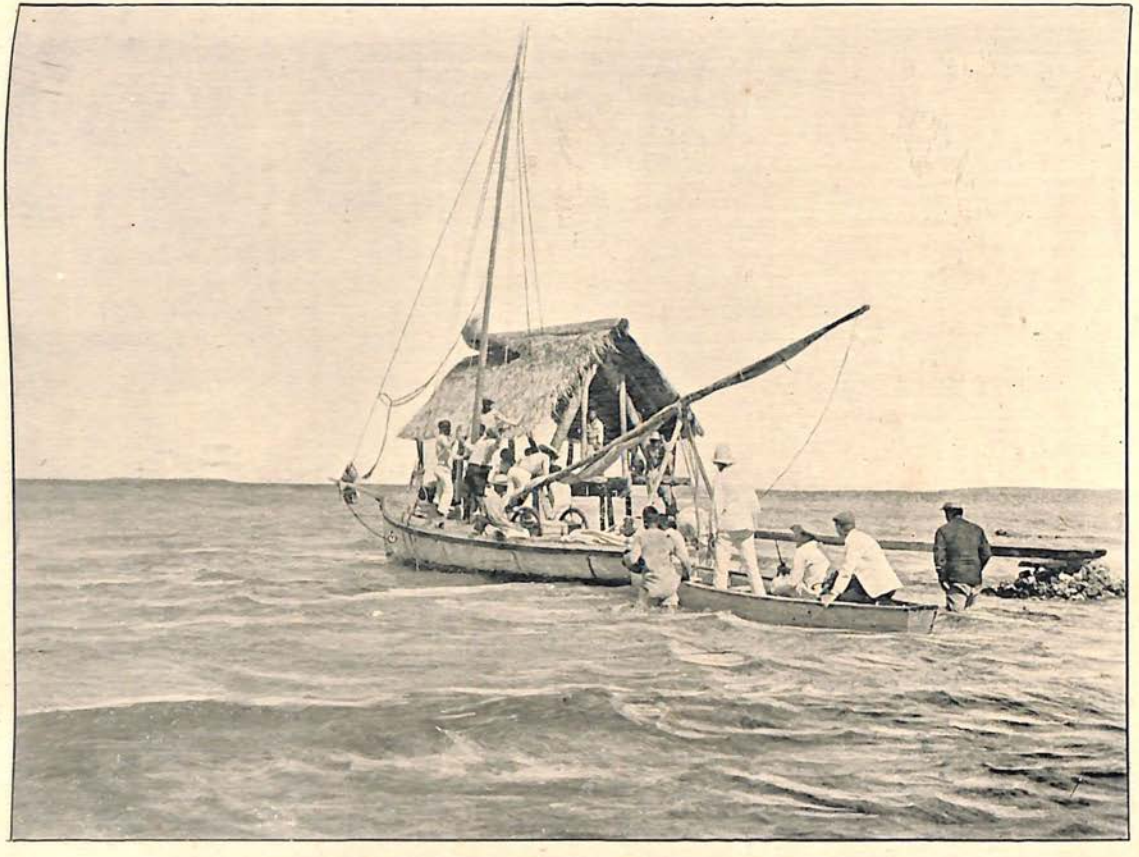
All fees under the Act shall be due and payable in advance.

Where several properties are included in one form of application, there shall be charged in respect of each property an application fee, and a fee for bringing the land under the Act. Land included within one outer boundary shall be deemed one property for the purpose of this regulation.

In all cases a fee of one pound (£1) is hereby prescribed as the charge to be made for advertising notice of application; provided that, whenever it is necessary that unusual publicity shall be given to any application, the District Land Registrar may require payment of such additional sum as shall, in his judgment, be sufficient to defray the cost of such advertisements.

In all cases where application is made to bring land under the Act, and the certificate of title is directed to issue and is issued in the name of the applicant, the fees for bringing such land under the Act, with the exception of the "application fee," may, at the request of the applicant, remain unpaid until such land is dealt with by him as registered proprietor. The District Land Registrar shall retain any such certificate of title until the fees due upon the same have been paid, and, until such payment, shall not register any dealing with the land included in such certificate of title.

Printed forms supplied by the Registrar for use under the Act shall be charged for at the rate of one shilling each. Solicitors, land-brokers, and others having forms printed for their own use, and at their own expense, shall, on approval of such forms by the Registrar, be entitled to have the same sealed free of charge.



Y.B. His Excellency Lord Ranfurly visits the Pearl-fisheries, Penrhyn Island.

PART II.—STATISTICAL.

SECTION I.—MANUFACTORIES AND WORKS.

THE results of the compilation of the special returns relating to the various manufactories, works, &c., in the colony are compared with those shown for previous censuses in certain of the tabulated statements given with these remarks.

It must be observed, however, that whereas up till the time of last census the term "factory" was rather held to mean an establishment where manufacture was carried on wholesale, where machinery was employed, and where several hands worked together; in the returns for 1901 a "factory" has been interpreted to mean any concern where two or more persons work together at making articles for disposal, wholesale or retail, and without reference to machinery being used or not. Thus the return seems to be rather one showing industrial workers (and their production) where two or more are found together, than one of manufactories to supply the wholesale traders, or making for export. But the attempt has been made to approximate the census results to those of the Labour Department, according to special direction. To make the comparison with previous census figures as true as possible, the results for all the dressmaking, tailoring, shirt-making, millinery, and other establishments which were not included until 1901, have been deducted from the totals at foot of the summary table. Any roughness in the comparison caused by small concerns employing two persons only, and doing a retail business in making or repairing, having been included at the last census, but not before, cannot be avoided. And indeed it will become clear to any one reading the following remarks that the large increase in money value of manufactures is obtained mostly on items in respect of which moving down to a limit of two persons engaged would not materially alter the comparison.

The totals for the industries do not include mining and quarrying, which are dealt with separately.

Deducting, as above mentioned, from the total value of manufactures for the year 1900 the results for such industries as were

not included in 1895, a most satisfactory increase is found on analysis of items, which has been mainly brought about by developments on a large scale in the following industries:—

VALUE OF OUTPUT FOR YEAR 1895 COMPARED WITH 1900.

	Increase in 5 years. £
Meat freezing, preserving, &c.	2,182,616
Butter and cheese factories	1,033,876
Tanning, fellmongering, and wool-scouring ...	650,855
Foundries, boiler-making, range-making, and engineering	621,356
Sawmills, with sash and door making ...	369,882
Printing establishments (not Government) ...	315,161
Clothing (with boot and shoe) factories ...	242,122
Breweries and malt-houses	240,468
Flaxmills	170,946
Gasworks	91,542
Chaff-cutting works	90,816
Biscuit factories	79,010
Bacon-curing establishments	73,542
Coach-building and painting	67,108
Woollen-mills	56,959
Brick, tile, and pottery works	56,090
Aerated-water factories	53,202
Cycle factories	46,230
Lime and cement works	29,261

If to these be added the value of the grass-seed after dressing, £241,239 for the year 1900, the greater part of the increase in the total for all manufactured articles (£7,591,789) is accounted for. There are a large number of smaller amounts of increase than those above stated, but the main lines of development are sufficiently indicated.

The addition of the figures in the column for total value of manufactures is not absolutely justified to the fullest extent of the amount shown (seventeen million pounds sterling); but in the present state of New Zealand industries it appears that the degree of repetition of value is not so great as to prevent the total given being of great help in judging of development. No doubt seventeen million pounds is over the fact, because, for instance, butter frozen for export is included in returns for meat freezing establishments, and also in the butter factory returns; timber cut is valued under saw-milling, and some again in the furniture-making line. Also, leather is valued in the tanning returns, and some part of it again in the boot and saddlery items. But, of the material operated upon, a great deal is imported.

The great primary industries of meat-freezing, butter and cheese making, with some others, do not mainly provide materials for making other wares.

The iron which is used at the foundries and engineering works is imported to New Zealand.

But it must be admitted that, as the colony advances in primary industries, deductions will have to be made with great discrimination from the figures in the column "Value of all manufactures," in respect of the amounts given in the returns.

As yet it is held that the addition is not so much affected by repetitions as to render the result other than useful; although, as before remarked, the total figures are admittedly in excess of the actual fact. The comparison with previous census results is still considered valuable.

The special tables which follow the summaries will show clearly that quantities have risen, as well as the value of manufactures, so that the development is not merely a question of market prices but of actual output.

In 1896 the actual increase in five years of the annual output was found to be only £775,523. But it was noticed that there were special causes for this amount being so small; and also that quantities showed then in many cases a certain degree of development of industries, though values had not been maintained throughout.

The year 1895 was admittedly a time when great results could not be looked for. Severe financial troubles had happened shortly before. The phormium and rope industries, iron-working (implements and other) were not thriving, and in other lines matters were not altogether what could have been wished. The inquiry for the year 1900 has been made after a period of great prosperity.

MANUFACTORIES AND WORKS, 1896 AND 1901.

	April, 1896. No.	March, 1901.† No.	Increase, 1896-1901. No.
Number of establishments* ..	2,459	3,163	704
Hands employed—			
Males	22,986	35,438	12,452
Females	4,403	6,288	1,885
Totals†	27,389	41,726	14,337
Wages paid—	£	£	£
To Males	1,776,076	2,895,279	1,119,203
" Females	131,516	203,282	71,766
Totals†	1,907,592	3,098,561	1,190,969

* Omitting Government Railway Workshops and Government Printing Office.

† Excluding dressmaking, tailoring, shirt-making, millinery, &c., for which no returns in 1896.

MANUFACTORIES AND WORKS, 1896 AND 1901—*continued.*

	April, 1896.	March, 1901.	Increase, 1896-1901
	H.-p.	H.-p.	H.-p.
Horse-power	28,096	39,052	10,956
	£	£	£
Total approximate value of—			
Land	1,063,989	1,713,254	649,265
Buildings	1,743,073	2,419,803	676,730
Machinery and plant	2,988,955	3,826,574	837,619
Totals	5,796,017	7,959,631	2,163,614

Under the heading "Hands employed," the males increased from 22,986 in 1896 to 35,438, or at the rate of nearly 54·17 per cent. in five years. The females employed increased at the rate of 42·81 per cent.

The wages paid in the factories or large industrial works dealt with in the census returns were returned for 1895 at £1,907,592, and for 1900 £3,098,561.

The average annual amount of wages paid to male hands was £77·2 in 1895 and £81·7 in 1900. For females, £29·8 in 1895 against £32·3 at the last census. The wages of both would seem to have been more than maintained.

The increase for the year 1901 over 1896 in the horse-power stated in the returns was 10,956, against 6,400 for 1896.

The approximate value of the land used for purposes of the factories and industries increased from £1,063,989 in 1896 to £1,713,254 in 1901. The value of the lands used for mining is not included in the above figures, and the value of Crown lands has been omitted throughout.

A very satisfactory development will be found in the value of the machinery and plant, from £2,988,955 in 1896 to £3,826,574 in 1901, being at the rate of 28·02 per cent. for the period. The value of the buildings also increased greatly.

INDUSTRIES IN PROVINCIAL DISTRICTS.

All the various industries for which returns were received in 1901 are given in the statement below, which thus enumerates completely the manufactories and works in operation in the colony, specifying the provincial districts in which they are situated :—

Industries in Provincial Districts.

Manufactories, Works, &c.	Number of Industries in Provincial Districts.									Total Number of Industries.
	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland.	Canterbury.	Otago.	
Animal food—										
Meat freezing and preserving works	7	2	2	5	1	..	..	4	13	34
Ham- and bacon-curing establishments	4	4	2	3	..	4	..	10	12	39
Fish curing and preserving works	8	..	..	4	1	1	1	..	13	28
Butter and cheese factories	27	102	8	37	4	7	3	17	42	247
Rabbit-packing	..	..	..	..	..	..	..	..	7	7
Condensed-milk factory	..	..	..	..	..	..	..	..	1	1
Vegetable food—										
Grain-mills	8	3	2	8	2	5	..	23	27	78
Biscuit-factories	5	..	1	3	1	1	..	2	7	20
Fruit-preserving and jam-making works	6	1	1	1	..	1	..	1	2	13
Sugar-boiling and confectionery works	8	..	3	4	..	..	..	7	4	26
Sugar-refining works	1	..	..	..	..	..	..	..	..	1
Fruit-canning works	1	..	..	..	..	..	..	..	..	1
Baking-powder factories	8	..	..	1	..	..	..	1	1	11
Drinks, narcotics, and stimulants—										
Breweries	9	3	5	10	2	10	4	16	15	74
Malthouses	4	..	1	3	2	4	1	10	8	33
Colonial-wine making	4	..	3	1	1	2	1	2	..	14
Aerated-water factories	22	11	8	24	5	7	4	27	17	125
Coffee and spice works	4	..	..	4	..	1	1	3	5	18
Tobacco manufactories	2	..	..	..	..	..	..	..	..	2
Cigarette manufactories	1	..	..	1	..	..	..	..	1	3
Sauce and pickle factories	9	1	1	5	..	1	..	4	2	23
Vinegar works	3	..	..	..	..	1	..	..	..	4
Ice factories	2	..	..	..	..	..	..	..	..	2
Animal matters (not otherwise classed)—										
Bone-mills	2	3	..	2	..	..	1	..	..	8
Soap and candle works	7	..	1	4	..	2	..	6	4	24
Glue factory	1	..	..	..	..	..	..	..	..	1
Sausage-skin factory	1	..	1	3	..	..	..	4	1	10
Boiling-down works	5	..	1	3	..	..	..	..	5	14
Manure-works	1	..	2	..	..	..	..	1	1	5
Oleomargarine-works	..	..	..	..	..	..	..	1	..	1
Fat-refining works	..	..	..	..	..	..	..	1	..	1
Working in wood—										
Cooperages	4	2	2	4	..	..	..	7	4	23
Saw-mills, sash and door factories	48	23	26	66	8	46	29	18	70	334
Barrow and ladder factory	1	..	..	..	..	..	..	..	..	1
Woodware and turnery factories	10	1	..	5	..	..	..	6	6	28

INDUSTRIES IN PROVINCIAL DISTRICTS—*continued.*

Manufactories, Works, &c.	Number of Industries in Provincial Districts.									Total Number of Industries.
	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland.	Canterbury.	Otago.	
Vegetable produce for fodder—										
Chaff-cutting establishments	15	2	..	..	..	12	..	25	1	55
Grass-seed-dressing establishments	..	4	1	..	..	..	..	9	11	25
Paper-manufacture—										
Paper-mills	1	..	..	..	..	..	..	..	2	3
Paper bag and box factories..	3	..	..	..	..	..	..	1	3	7
Gas-works	6	2	2	6	1	2	2	4	5	30
Electric-lighting works ..	..	1	..	1	..	1	..	1	2	6
Processes relating to stone, clay, glass, &c.—										
Lime and cement works ..	6	..	..	1	..	2	1	..	5	15
Brick, tile, and pottery works	24	5	8	18	1	5	2	20	25	108
Tobacco-pipe factory ..	..	..	..	..	..	..	..	..	1	1
Monumental masonry ..	8	..	1	3	..	2	..	6	7	27
Glassworks	1	..	..	..	..	..	..	1	..	2
Glass-bevelling works ..	1	..	..	1	..	..	..	..	..	2
Electro-plating works ..	1	..	..	..	..	..	..	1	..	2
Pumice-works	1	..	..	..	..	..	..	..	..	1
Metals, other than gold and silver—										
Tinware-factories	12	..	..	13	..	4	2	18	11	60
Iron and brass foundries, boiler-making, machinists, &c.	13	1	2	13	2	3	3	14	14	65
Heel- and toe-plate factories	2	..	..	..	..	..	..	..	1	3
Engineering-works	10	..	..	9	..	2	..	8	8	37
Range-making works ..	5	..	..	1	..	..	..	..	3	9
Spouting and ridging factories	6	8	2	3	..	..	..	7	9	35
Lead-headed-nail works ..	..	..	..	1	..	..	..	..	..	1
Iron-pipe and fluming works..	..	..	..	..	..	..	..	..	2	2
Books and publications—										
Printing offices	35	12	4	40	2	8	3	35	49	188
Musical instruments—										
Musical-instrument factories	..	..	..	1	..	..	..	..	2	3
Ornaments, minor art products, and small wares—										
Picture-frame makers ..	2	..	..	4	..	..	..	..	3	9
Basket and perambulator factories	6	..	..	6	..	..	..	4	5	21
Cork-cutting	1	..	..	..	..	..	..	..	..	1
Lapidaries	..	..	..	..	..	..	..	..	3	3
Equipment for sports and games—										
Billiard-table factories ..	1	..	..	1	..	..	..	1	..	3
Designs, medals, type, and dies—										
Rubber-stamp making ..	2	..	..	..	..	..	..	..	..	2
Arms and explosives—										
Ammunition factory ..	1	..	..	..	..	..	..	..	..	1

INDUSTRIES IN PROVINCIAL DISTRICTS—*continued.*

Manufactories, Works, &c.	Number of Industries in Provincial Districts.									Total Number of Industries.
	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland.	Canterbury.	Otago.	
Machines, tools, and implements—										
Agricultural-implement factories	6	..	2	3	..	..	..	10	12	33
Brush and broom factortes ..	6	..	..	1	..	..	..	3	2	12
Cutlery factory	1	..	..	..	..	..	..	..	..	1
Bellows factory	1	..	..	..	..	..	..	..	..	1
Carriages and vehicles—										
Coach building and painting works	33	11	12	44	4	9	1	26	20	160
Cycle factories	8	2	3	10	..	2	..	25	21	71
Harness, saddlery, and leatherware—										
Saddlery and harness factories	22	7	7	29	..	5	1	24	20	115
Whip-thong factories ..	..	..	..	1	..	..	..	..	1	2
Portmanteau factories ..	2	..	..	2	..	..	..	..	2	6
Tanning, fellmongering, and wool-scouring establishments	16	4	15	14	4	4	..	20	33	119
Ships, boats, and their equipment—										
Ship- and boat-building yards	17	..	..	3	..	1	..	2	9	32
Graving-docks and patent slips	3	..	..	1	..	..	..	2	1	7
Block and pump factory ..	1	..	..	..	..	..	..	..	..	1
Sail and oilskin factories ..	9	1	2	4	..	1	1	5	7	30
Furniture—										
Furniture and cabinetmaking	26	14	7	36	1	4	4	20	32	144
Venetian-blind works ..	2	..	..	5	..	..	..	2	3	12
Mattress factories	3	..	..	3	..	..	..	2	4	12
Wool, rug, and mat making..	..	..	..	..	..	..	..	..	2	2
Chemicals and by-products—										
Perfumery manufactories ..	1	..	..	..	..	..	..	..	..	1
Varnish manufactories ..	3	..	..	..	..	..	..	..	1	4
Ink manufactories	2	..	..	..	..	..	..	..	1	3
Starch manufactories ..	..	..	..	..	..	1	..	..	2	3
Chemical works	2	..	..	..	..	..	..	1	5	8
Hæmatite-paint factories ..	..	..	..	..	..	1	..	..	3	4
Sheep-dip factories.. ..	..	..	2	..	..	..	..	..	1	3
Match factories	..	..	..	1	..	..	..	..	1	2
Herbal-remedies factories ..	1	..	..	4	..	..	..	..	3	8
Blacking factories	1	..	..	1	..	..	..	..	1	3
Coccanut-oil mill	2	..	..	..	..	..	..	..	..	2
Textile fabrics—										
Woollen-mills	1	..	..	1	..	..	..	3	5	10
Flock-mills	1	..	..	1	..	..	..	1	2	5
Cleaning and dyeing works ..	5	..	..	2	..	..	..	3	1	11
Dress—										
Tailoring establishments ..	32	12	3	67	..	10	7	22	22	175
Dressmaking and millinery establishments	41	8	12	78	5	9	3	69	65	290

INDUSTRIES IN PROVINCIAL DISTRICTS.—*continued.*

Manufactories, Works, &c.	Number of Industries in Provincial Districts.									Total Number of Industries.
	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland.	Canterbury.	Otago.	
Dress—*continued.*										
Shirt-making establishments	4	1	..	7	..	1	..	4	8	25
Corset and belt manufactories	3	..	..	..	..	..	..	3	..	6
Clothing factories	7	..	..	3	..	..	..	3	8	21
Waterproof factories ..	1	..	..	2	..	..	..	1	2	6
Boot and shoe factories ..	31	4	..	24	..	2	3	27	35	126
Hat and cap factories ..	5	..	..	3	..	..	..	2	3	13
Hosiery factories	1	..	..	3	..	1	..	5	7	17
Fibrous materials—										
Rope and twine works ..	3	1	..	2	..	..	..	7	4	17
Bag and sack factories ..	..	..	..	..	..	..	..	..	1	1
Flax-mills	23	6	2	25	14	7	..	8	16	101
Returns not included in above..	40	5	3	4	..	6	..	13	3	74
Totals, Census, 1901 ..	752	267	160	707	61	198	78	648	809	3680
Deduct tailoring, dressmaking, shirt-making, and monumental masons' establishments, not included in accounts taken for 1896 and 1891	85	21	16	155	5	22	10	101	102	517
Totals, Census, 1901 (less deductions shown above)	667	246	144	552	56	176	68	547	707	3163
Totals, Census, 1896 ..	573	128	147	396	50	154	47	448	516	2459
Totals, Census, 1891 ..	577	68	85	333	77	142	51	380	541	2254

The provincial districts, arranged according to the number of industries belonging to each, specified in the last census returns, stand as under:—

	Number of Industries, excluding Mines and Quarries.		
	1901.	1896	1891.
Otago	707	516	541
Auckland	667	573	577
Wellington	552	396	333
Canterbury	547	448	380
Taranaki	246	128	68
Nelson	176	154	142
Hawke's Bay	144	147	85
Westland	68	47	51
Marlborough	56	50	77

DETAILS OF THE PRINCIPAL INDUSTRIES.

The principal industries returned at the census of 1901, and particulars relating thereto, are given in detail in the following table. These industries are arranged in classes according to their nature :—

DETAILS OF THE PRINCIPAL INDUSTRIES.

Nature of Industries.	Total Number of Industries.	Number of Hands employed.			Wages paid.			Amount of Power employed (Horse-power).	Value of all Materials used or operated upon during 1900.	Value of all Manufactures or Produce (including Repairs) for the Year 1900.*	Approximate Value of Land, Buildings, Machinery, and Plant.
		Males.	Females.	Total	Males.	Females.	Total.				
					£	£	£	H.-p.	£	£	£
Animal food—											
Meat freezing and preserving works†	34	2,172	49	2,221	198,306	1,419	199,725	7,057	252,290	3,720,475	893,720
Ham and bacon curing establishments†	39	185	11	196	13,891	496	14,387	250	115,656	159,564	62,192
Fish curing and preserving works†	28	135	2	137	7,445	73	7,518	..	7,714	25,173	17,235
Butter and cheese factories†	247	1,165	23	1,188	95,461	972	96,433	2,399	1,195,600	1,535,150	388,750
Rabbit-packing ..	7	62	..	62	3,200	..	3,200	..	..	..	362
Condensed-milk factory	1	17	16	33	..	..	..	39	..	..	..
Vegetable food—											
Grain-mills†	78	513	2	515	49,254	110	49,364	2,422	545,642	682,884	358,656
Biscuit factories† ..	20	454	213	667	34,231	4,545	38,776	291	117,383	197,989	90,243
Fruit-preserving and jam-making works†	13	85	82	167	6,317	1,758	8,075	117	42,404	58,092	20,935
Sugar-boiling and confectionery works	26	158	147	305	11,128	3,600	14,728	19	47,150	88,580	56,955
Sugar-refining works ..	1	256	..	256	..	..	..	922	..	..	..
Fruit-canning works ..	1	3	2	5	..	..	..	10	..	..	..
Baking-powder factories	11	19	10	29	1,074	181	1,255	17	9,318	18,163	18,200
Drinks, narcotics, and stimulants—											
Breweries†	74	677	5	682	83,493	77	83,570	632	158,212	553,627	294,592

* For information as to quantities manufactured or produced, see special tables. Value of output, wages, &c., not shown where the number of establishments is so small that particulars might be identified.

† For full particulars respecting these industries, see special tables.

NOTE.—See note at end of Table.

DETAILS OF THE PRINCIPAL INDUSTRIES—*continued.*

Nature of Industries.	Total Number of Industries.	Number of Hands employed.			Wages paid.			Amount of Power employed (Horse-power).	Value of all Materials used or operated upon during 1900.	Value of all Manufactures or Produce (including Repairs) for the Year 1900.*	Approximate Value of Land, Buildings, Machinery, and Plant.
		Males.	Females.	Total.	Males.	Females.	Total.				
Drinks, narcotics, and stimulants—*continued.*					£	£	£	H.-p.	£	£	£
Malthouses†	33	145	..	145	14,994	..	14,994	110	72,211	105,671	75,038
Colonial-wine making† ..	14	49	10	59	2,320	92	2,412	14	3,019	10,330	18,183
Aerated-water factories†	125	437	15	452	31,771	284	32,055	250	63,835	151,811	105,178
Coffee and spice works ..	18	63	15	78	4,959	235	5,194	83	32,091	45,628	47,572
Tobacco manufactories	2	11	9	20	..	..	..	8	..	..	..
Cigarette manufactories	3	1	17	18	..	..	..	6	..	..	..
Sauce and pickle factories†	23	77	51	128	4,628	1,760	6,388	71	20,505	31,258	36,715
Vinegar works ..	4	13	10	23	1,179	258	1,437	4	3,284	6,824	4,480
Ice-factories	2	5	..	5	..	..	..	35	..	..	..
Animal matter (not otherwise classed)—											
Bone-mills	8	17	..	17	453	..	453	77	1,080	2,529	6,230
Soap and candle works†	24	224	8	232	19,009	239	19,248	346	112,623	158,649	66,809
Glue factory	1	5	..	5	..	..	..	28	..	..	..
Sausage-skin factories ..	10	98	..	98	8,689	..	8,689	..	17,845	30,674	3,949
Boiling-down works† ..	14	61	..	61	5,910	..	5,910	393	92,693	114,416	26,838
Manure works.. ..	5	30	..	30	1,872	..	1,872	63	31,652	37,769	10,266
Oleomargarine-works ..	1	9	..	9	..	..	..	50	..	..	..
Fat-refining works ..	1	14	..	14	..	..	..	18	..	..	..
Working in wood—											
Cooperages†	23	137	1	138	10,884	39	10,923	177	19,942	37,521	21,787
Saw-mills, sash and door factories†	334	6,805	7	6,812	513,622	266	513,888	8,744	..	1,268,689	703,620

Barrow and ladder factory	*1*	*5*	..	*5*	..	..	..	..	..	..	..
Woodware and turnery factories	*28*	*154*	*2*	*156*	*11,779*	*82*	*11,861*	*176*	*19,146*	*37,552*	28,227
Vegetable produce for fodder—											
Chaff-cutting establishments	55	265	1	266	9,829	26	9,855	391	130,507	169,313	46,786
Grass-seed dressing establishments	25	60	..	60	5,310	..	5,310	189	197,846	241,239	48,195
Paper manufacture—											
Paper-mills	3	79	19	98	..	..	..	705	..	..	..
Paper bag and box factories	7	24	57	81	1,312	1,936	3,248	13	4,471	14,217	11,499
Gasworks†	30	568	4	572	70,388	185	70,573	242	83,612	290,567	971,559
Electric-lighting works ..	6	52	..	52	6,226	..	6,226	2,158	4,603	23,234	64,156
Processes relating to stone, clay, glass, &c.—											
Lime and cement works†	15	184	..	184	16,577	..	16,577	466	18,397	45,142	38,436
Brick, tile, and pottery works†	108	838	..	838	63,336	..	63,336	659	..	122,230	114,567
Tobacco-pipe factory ..	1	2	2	4	..	..	..	..	..	..	..
Monumental masonry ..	27	81	..	81	7,072	..	7,072	13	8,689	22,313	17,391
Glassworks	2	9	..	9	..	..	..	..	..	..	..
Glass-bevelling works ..	2	7	..	7	..	..	..	13	..	..	..
Electro-plating works ..	2	11	..	11	..	..	..	7	..	..	..
Pumice-works ..	1	27	1	28	..	..	..	15	..	..	..
Metals, other than gold and silver—											
Tinware factories† ..	60	336	1	337	23,107	36	23,143	23	52,553	98,587	56,914
Iron and brass foundries, boiler-making, machinists, &c.†	65	1,950	5	1,955	162,477	170	162,647	983	240,578	508,906	211,282
Heel- and toe-plate factories	3	7	..	7	..	..	..	23	..	..	..

* For information as to quantities manufactured or produced, see special tables. Value of output, wages, &c., not shown where the number of establishments is so small that particulars might be identified.

† For full particulars respecting these industries see special tables.

NOTE.—See note at end of Table.

Details of the Principal Industries—*continued.*

Nature of Industries.	Total Number of Industries.	Number of Hands employed.			Wages paid.			Amount of Power employed (Horse-power).	Value of all Materials used or operated upon during 1900.	Value of all Manufactures or Produce (including Repairs) for the Year 1900.*	Approximate Value of Land, Buildings, Machinery, and Plant.
		Males.	Females.	Total.	Males.	Females.	Total.				
					£	£	£	H.p.	£	£	£
Metals, other than gold and silver—*continued.*											
Engineering works†‡ ..	37	1,437	5	1,442	127,374	261	127,635	541	186,208	361,958	155,081
Range-making works ..	9	193	..	193	16,927	..	16,927	53	19,721	53,307	27,919
Spouting and ridging factories	35	261	..	261	20,584	..	20,584	35	70,649	112,691	52,687
Lead-headed-nail works	1	3	..	3	..	..	..	..	..	..	..
Iron-pipe and fluming works	2	5	..	5	..	..	..	..	..	..	..
Books and publications—											
Printing offices†§ ..	188	2,627	507	3,134	268,041	16,564	284,605	956	200,243	704,285	559,538
Musical instruments—											
Musical-instrument factories	3	11	..	11	..	..	..	..	..	..	..
Ornaments, minor art products, and smallwares—											
Picture-frame makers ..	9	19	3	22	1,234	69	1,303	1	2,497	5,771	11,750
Basket and perambulator factories	21	107	11	118	6,517	494	7,011	9	6,902	17,942	18,180
Cork-cutting	1	3	..	3	..	..	..	..	..	..	..
Lapidaries	3	8	..	8	..	..	..	7	..	..	..
Equipment for sports and games—											
Billiard-table factories ..	3	7	..	7	..	..	..	..	..	..	..
Designs, medals, type, and dies—											
Rubber-stamp making ..	2	3	..	3	...	..	..	..	..	..	..

Arms and explosives—											
Ammunition-factory ..	1	21	84	105	..	..	..	39	..	..	
Machines, tools, and implements—											
Agricultural implement factories†	33	584	2	586	53,879	62	53,941	360	49,072	138,094	61,339
Brush and broom factories	12	86	42	128	5,965	1,190	7,155	32	10,153	21,131	13,829
Cutlery-factory ..	1	2	..	2	..	..	..	2	..	..	..
Bellows-factory ..	1	2	..	2	..	..	..	..	..	..	..
Carriages and vehicles—											
Coach-building and painting works†	160	1,185	..	1,185	83,356	..	83,356	128	88,229	216,077	150,811
Cycle-factories† ..	71	378	17	395	20,873	570	21,443	95	26,824	65,047	65,403
Harness, saddlery, and leatherware—											
Saddlery and harness factories†	115	629	23	652	40,808	1,026	41,834	3	75,724	147,626	96,559
Whip-thong factories ..	2	5	..	5	..	..	..	..	..	..	..
Portmanteau factories ..	6	19	3	22	1,206	117	1,323	..	2,741	5,483	6,460
Tanning, fellmongering, and wool-scouring establishments†	119	1,957	6	1,963	159,180	162	159,342	1,108	1,391,323	1,888,107	235,952
Ships, boats, and their equipment—											
Ship- and boat-building yards†	32	211	..	211	13,476	..	13,476	49	20,389	45,811	15,198
Graving-docks and patent slips	7	32	..	32	2,864	..	2,864	435	..	7,264	230,165
Block and pump factory	1	2	..	2	..	..	..	4	..	..	..
Sail and oilskin factories†	30	150	81	231	10,446	1,996	12,442	..	24,628	44,854	40,893
Furniture—											
Furniture and cabinet-making†	144	1,243	67	1,310	88,843	2,262	91,105	369	101,595	241,024	170,338
Venetian-blind works ..	12	49	2	51	3,567	65	3,632	19	5,896	13,233	7,469
Mattress-factories ..	12	55	..	55	3,260	..	3,260	20	9,212	16,296	13,165
Wool, rug, and hat making	2	9	8	17	..	..	..	..	..	..	..

* For information as to quantities manufactured or produced, see special tables. Value of output, wages, &c., not shown where the number of establishments is so small that particulars might be identified.
† For full particulars respecting these industries, see special tables.
‡ Value of manufactures at Government Railway Workshops not included.
§ Value of manufactures at Government Printing Office not included.
NOTE.—See note at end of table.

DETAILS OF THE PRINCIPAL INDUSTRIES—*continued.*

Nature of Industries.	Total Number of Industries.	Number of Hands employed.			Wages paid.			Amount of Power employed (Horse-power).	Value of all Materials used or operated upon during 1900.	Value of all Manufactures or Produce (including Repairs) for the Year 1900.*	Approximate Value of Land, Buildings, Machinery, and Plant.
		Males.	Females.	Total.	Males.	Females.	Total.				
					£	£	£	H.-p.	£	£	£
Chemicals and by-products—					..	..	..	..	..	..	..
Perfumery-manufactory	1	1	3	4	..	..	..	..	..	..	..
Varnish-manufactories..	4	19	..	19	1,474	..	1,474	37	4,227	6,732	5,765
Ink-manufactories ..	3	5	..	5	..	..	..	8	..	..	..
Starch-manufactories ..	3	24	8	32	..	..	..	16	..	..	..
Chemical-works ..	8	76	19	95	7,551	504	8,055	92	42,479	64,834	37,793
Hæmatite-paint factories	4	12	..	12	609	..	609	28	1,030	2,578	5,943
Sheep-dip factories ..	3	6	1	7	..	..	..	10	..	..	..
Match-factories ..	2	37	146	183	..	..	..	19	..	..	..
Herbal-remedies factories	8	13	10	23	1,134	581	1,715	12	3,994	18,396	10,305
Blacking-factories ..	3	2	1	3	..	..	..	7	..	..	..
Cocoanut-oil mill ..	2	10	..	10	..	..	..	54	..	..	..
Textile fabrics—											
Woollen-mills† ..	10	769	924	1,693	71,454	40,547	112,001	1,554	196,081	359,382	277,422
Flock-mills	5	9	1	10	559	12	571	55	1,459	4,105	2,650
Cleaning and dyeing works	11	28	23	51	1,816	837	2,653	13	2,141	7,855	9,635
Dress—											
Tailoring establishments	175	722	899	1,621	65,695	37,251	102,946	8	122,853	301,356	211,016
Dressmaking and millinery establishments	290	23	2,865	2,888	2,236	76,270	78,506	..	173,211	312,436	193,998
Shirt-making establishments	25	28	503	531	1,911	13,651	15,562	40	45,319	75,879	26,528
Corset and belt manufactories	6	1	24	25	9	542	551	..	959	2,249	5,659
Clothing-factories† ..	21	431	2,081	2,512	37,778	63,023	100,801	67	177,828	329,026	89,247

Dress—*continued*,											
Waterproof-factories† ..	6	22	92	114	1,807	2,822	4,629	3	6,285	13,378	7,845
Boot and shoe factories†	126	1,906	790	2,696	165,227	27,216	192,443	184	273,325	529,254	176,992
Hat and cap factories ..	13	37	80	117	2,641	2,748	5,389	20	11,463	25,641	19,217
Hosiery-factories† ..	17	17	265	282	1,328	6,702	8,030	71	18,032	31,265	19,997
Fibrous materials—											
Rope and twine works† ..	17	192	..	192	13,136	..	13,136	494	46,378	87,863	55,309
Bag and sack factory ..	1	..	6	6	..	..	..	..	..	..	..
Flax-mills†	101	1,698	..	1,698	101,046	..	101,046	1,190	53,064	203,492	64,446
Values for industries of which less than four of any one sort were found in the returns	..	..	..	..	53,927	9,235	63,162	..	526,252	694,896	258,885
Returns not included in above	74	140	156	296	10,952	4,836	15,788	188	28,834	61,749	59,659
Totals, Census, 1901	3,680	36,292	10,555	46,847	2,972,193	330,454	3,302,647	39,113	7,749,770	17,853,133§	8,408,564
Deduct tailoring, dressmaking, shirtmaking, and monumental masons' establishments, not included in accounts taken for 1896 and 1891	517	854	4,267	5,121	76,914	127,172	204,086	61	350,072	711,984	448,933
Totals, Census, 1901 (less deductions shown above)	3,163	35,438	6,288	41,726	2,895,279	203,282	3,098,561	39,052	7,399,698	17,141,149	7,959,631
Totals, Census, 1896	2,459	22,986	4,403	27,389	1,776,076	131,516	1,907,592	28,096	3,285,247	9,549,360	5,796,017
Totals, Census, 1891	2,254	22,664	2,969	25,663	1,705,641	102,999	1,808,640	21,696	..	8,773,837	5,261,826

* For information as to quantities manufactured or produced, see special tables. Value of output, wages, &c., not shown where the number of establishments is so small that particulars might be identified. † For full particulars respecting these industries, see special tables. § See remarks on page 102.

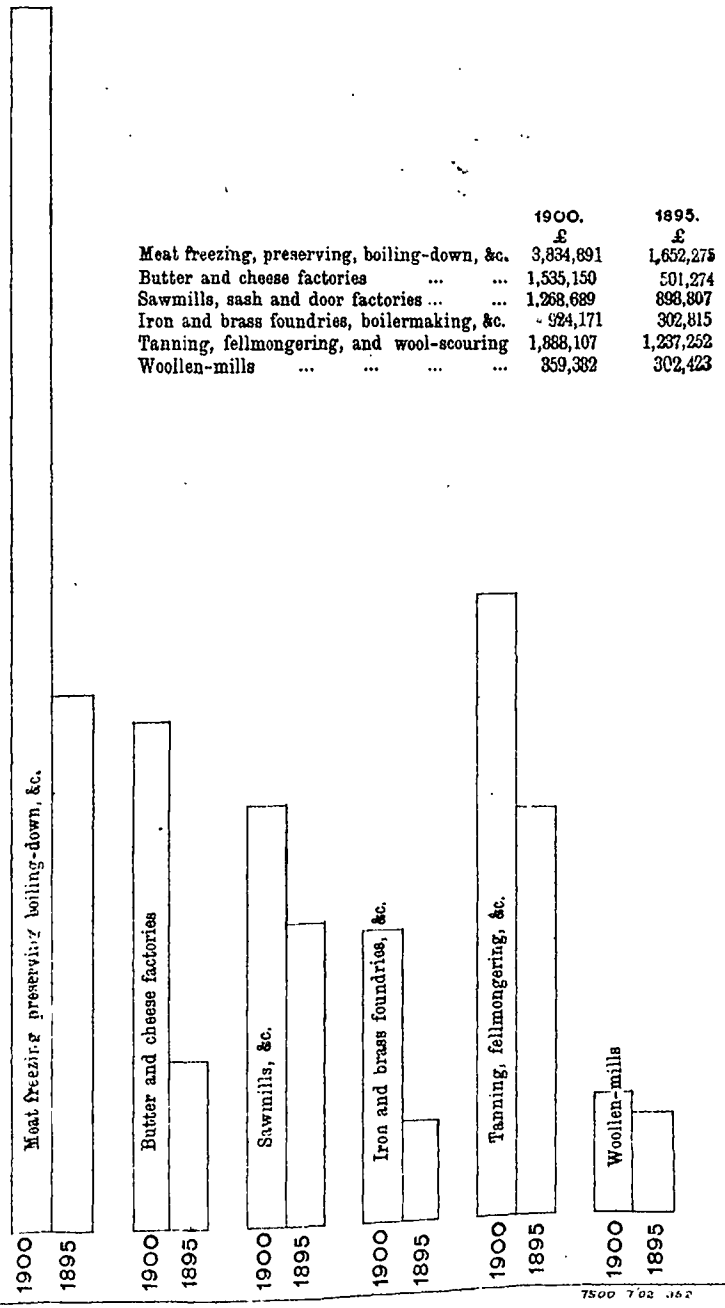
NOTE.—Two or more distinct industries were carried on at some establishments. In such cases particulars of power, hands, and plant employed, and wages paid, unless stated separately for each branch of industry, have been treated as belonging to the most important work.

The succeeding statement shows the most important industries in operation in 1901, ranged in order of the values of their output for 1900, and compared with the results obtained for the years 1895, 1890, and 1885:—

	Total Value of all Manufactures or Produce, including Repairs.			
	1900.	1895.	1890.	1885.
	£	£	£	£
Meat-freezing and preserving and boiling-down works	3,834,891	1,652,275	1,464,659	543,878
Tanning, fellmongering, and wool-scouring	1,888,107	1,237,252	1,026,349	634,915
Butter and cheese factories ..	1,535,150	501,274	150,957	43,094
Sawmills, sash and door factories	1,268,689	898,807	832,959	1,177,713
Iron and brass foundries, boiler-making, machinists, &c. (not including Government Railway Workshops)	924,171	302,815	403,635	368,919
Clothing and boot-and-shoe factories	858,280	616,158	570,315	514,506
Printing establishments (not including Government Printing Office)	704,285	389,124	354,559	273,886
Grain mills	682,884	874,656	991,812	754,830
Breweries and malthouses ..	659,298	418,830	380,849	421,197
Woollen mills	359,382	302,423	279,175	194,311
Gasworks	290,567	199,025	178,947	194,653
Grass-seed dressing establishments	241,239	..	..	..
Furniture and cabinetmaking ..	241,024	85,327	131,314	162,375
Coach-building and painting works	216,077	148,969	139,660	128,346
Flax-mills	203,492	32,546	234,266	20,059
Biscuit factories	197,989	118,979	127,147	47,784
Chaff-cutting works	169,313	78,497	63,236	54,440
Bacon-curing establishments ..	159,564	86,022	83,435	58,799
Soap and candle works ..	158,649	152,298	155,714	130,745
Aërated-water factories ..	151,811	98,609	91,691	94,098
Saddlery and harness factories ..	147,626	63,735	37,347	..
Agricultural implement factories	138,094	102,054	144,472	111,823
Brick, tile, and pottery works ..	122,230	66,140	56,830	91,797
Spouting and ridging works ..	112,691	23,762	33,140	25,478
Tinware factories	98,587	63,723	14,297	8,500
Sugar-boiling and confectionery works	88,580	33,235	17,248	17,130
Rope and twine works ..	87,863	52,400	76,711	56,413
Cycle factories	65,047	18,817	5,655	1,301
Chemical works	64,834	75,320	41,568	34,283
Fruit-preserving and jam-making works	58,092	36,108	27,255	32,292
Ship and boat-building works ..	45,811	25,233	35,847	56,132
Coffee and spice works ..	45,628	74,339	64,024	98,234
Lime and cement works ..	45,142	15,881	19,416	16,928
Sail, tent, and oilskin factories..	44,854	30,166	31,083	25,574
Bone-mills and other manure works	40,298	12,246	4,628	8,337
Woodware and turnery factories	37,552	18,276	9,050	..
Cooperages	37,521	19,233	11,540	11,862
Hosiery factories	31,265	9,357	5,650	6,200
Sauce and pickle works ..	31,258	13,417	6,407	3,145
Sausage-skin factories.. ..	30,674	13,472	10,582	..

Increase in the Value of Output of certain Important Colonial Industries, 1895-1900.

	1900.	1895.
	£	£
Meat freezing, preserving, boiling-down, &c.	3,834,891	1,652,275
Butter and cheese factories	1,535,150	501,274
Sawmills, sash and door factories	1,268,689	898,807
Iron and brass foundries, boilermaking, &c.	924,171	302,815
Tanning, fellmongering, and wool-scouring	1,888,107	1,237,252
Woollen-mills	359,382	302,423



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	Total Value of all Manufactures or Produce, including Repairs.			
	1900. £	1895. £	1890. £	1885. £
Hat and cap factories	25,641	10,902	21,628	13,695
Fish-curing and preserving works	25,173	10,292	19,537	12,182
Electric-lighting works ..	23,234	..	..	..
Brush and broom factories ..	21,131	23,363	13,340	7,786
Herbal-remedies factories ..	18,396	..	..	..
Baking-powder factories ..	18,163	10,153	5,637	4,120
Basket and perambulator factories	17,942	11,920	7,381	4,375
Mattress factories	16,296	..	..	..
Paper-bag and cardboard box factories	14,217	7,698	4,497	..
Waterproof factories	13,378	22,354	..	..
Venetian blind factories ..	13,233	9,878	4,776	6,470
Colonial-wine works	10,330	8,963	3,456	3,626
Other industries in respect of which the value of the manufactures was less than £8,000, and sundry	805,606	473,037	380,156	235,148

The order of the principal industries, ranged according to the number of hands employed, is as follows:—

	Number of Hands.		
	1901.	1896.	1891.
Sawmills, sash and door factories	6,812	4,059	3,266
Clothing and boot and shoe factories	5,208	4,407	3,233
Iron and brass foundries, boiler-making, machinists, &c.	3,590	1,642	1,787
Printing establishments (excluding Government Printing Office)	3,134	2,351	2,569
Meat freezing, preserving, and boiling-down works ..	2,282	2,037	1,568
Tanning, fellmongering, and wool-scouring establishments	1,963	1,629	1,196
Flax-mills	1,698	647	3,204
Woollen mills	1,693	1,416	1,175
Furniture and cabinet-making factories	1,310	496	585
Butter and cheese factories	1,188	576	269
Coach-building and painting works	1,185	807	678
Brick, tile, and pottery works	838	455	494
Breweries and malthouses	827	560	563
Biscuit factories	667	425	331
Saddlery and harness factories	652	266	184
Agricultural implement factories	586	581	528
Gasworks	572	295	249
Grain-mills	515	419	499
Aerated-water factories	452	347	261
Cycle factories	395	125	31
Tinware factories	337	289	93
Sugar-boiling and confectionery works	305	69	53
Hosiery factories	282	133	51
Chaff-cutting works	266	212	205
Spouting and ridging works	261	90	100

	Number of Hands.		
	1901.	1896.	1891.
Sugar-refining works	256	160	110
Soap and candle works	232	190	209
Sail, tent, and oilskin factories	231	143	124
Ship- and boat-building yards	211	108	145
Bacon-curing establishments	196	123	84
Rope and twine works	192	150	222
Lime and cement works	184	79	98
Match factories	183	121	..
Fruit-preserving and jam-making works	167	193	117
Woodware and turnery factories	156	81	51
Cooperages	138	76	53
Fish-curing and -preserving works	137	75	140
Brush and broom factories	128	92	81
Sauce and pickle works	128	68	41
Basket and perambulator factories	118	76	63
Hat and cap factories	117	72	112
Waterproof factories	114	93	..
Ammunition factories	105	90	80
Sausage-skin factories	98	56	73
Paper mills	98	84	48
Chemical works	95	114	55
Paper-bag and cardboard-box factories	81	86	35
Coffee and spice works	78	119	81
Rabbit preserving and packing works	62	32	..
Grass-seed dressing establishments	60	..	..
Colonial-wine works	59	53	24
Mattress factories	55	..	..
Electric-lighting works	52	..	..
Venetian-blind factories	51	45	29
Cleaning and dyeing works	51	58	48
Bone-mills and other manure works	47	46	25
Condensed-milk factory	33	..	..
Graving docks and patent slips	32	29	64
Starch and soda works	32	27	13
Baking-powder factories	29	..	..
Pumice works	28	20	..
Corset and belt manufactories	25	..	..
Herbal-remedies factories	23	..	..
Vinegar works	23	..	..
Portmanteau factories	22	..	..
Picture-frame makers	22	..	..
Tobacco manufactories	20	..	..
Sheep-dip factories	7	29	..
Industries employing under 20 hands	532	268	36

Meat Freezing and Preserving, with Boiling-down.

The establishments increased from 43 in 1896 to 48 in 1901, and the hands employed from 2,037 to 2,282. The value of output for 1900 is returned as more than double that for 1895, the figures being £3,834,891 against £1,652,275, a rise of £2,182,616. From 1890 to

1895 the increase was only £187,616. Of the total value for 1900 (£3,834,891), sheep and lambs frozen were valued at £2,103,166, and legs of mutton at £85,361. The beef frozen, preserved meats, tallow, bonedust, &c., also show largely increased business in the quinquennium, 1895–1900; frozen butter and rabbits most markedly so.

The table given below shows quantities as well as values in the comparisons, which speak for themselves as to the great development that has been proceeding of late.

Census Year.	No of Works.	Hands employed.		Wages paid.		Machine-power used.			Amount of Horse-power.	Output, 1900 and 1895. Sheep and Lambs frozen.	
		M.	F.	M.	F.	Steam.	Water.	Oil.		Carcases.	Value.
				£	£					No.	£
1901 ..	48	2,233	49	204,216	1,419	50	..	1	7,450	*3,348,123	*2,103,166
1896 ..	43	1,985	52	180,471	304	42	3	..	7,492	*2,362,535	*1,213,559
Increase ..	5	248	..	23,745	1,115	8	..	1	..	985,588	889,607
Decrease ..	..	..	3	..	..	..	3	..	42	..	..

Output for the Years 1900 and 1895—*continued.*

Census Year.	Beef frozen and chilled.		Frozen Rabbits.		Preserved Meats.		Tallow.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quan.	Value.
	Lb.	£	No.	£	Lb.	£	Tons.	£
1901 ..	34,285,328	381,210	6,040,047	144,616	7,867,440	171,151	14,767	298,821
1896 ..	1,954,495	21,425	..	..	4,999,640	74,369	10,958	172,310
Incr.	32,330,833	359,785	6,040,047	144,616	2,867,800	96,782	3,809	126,511

Output for the Years 1900 and 1895—*continued.*

Census Year.	Bonedust.		Other Manures.		Neatsfoot and Trotter Oil.		Bones, Horns, Hoofs, &c.	
	Quan.	Value.	Quan.	Value.	Quan.	Value.	Quan.	Value.
	Tons.	£	Tons.	£	Galls.	£	Tons.	£
1901 ..	6,514	31,037	5,721	25,824	30,174	3,450	530	3,085
1896 ..	3,248	11,865	2,206	9,424	15,067	2,097	113	188
Increase ..	3,266	19,172	3,515	16,400	15,107	1,353	417	2,897

* Also 21,994 cwt. of legs of mutton frozen in 1895, valued at £16,973, and 64,293 cwt. of frozen legs of mutton in 1900, valued at £85,361.

Census Year.	Output, 1900 and 1895—*continued.*			Approximate Value of		
	Other Products. Value.	Frozen Produce (Butter and all other frozen): Value.	Total Value of Output, 1900 and 1895.	Land.	Buildings.	Machinery and Plant.
	£	£	£	£	£	£
1901 ..	82,345	503,430	3,834,891	87,776	428,075	404,707
1896 ..	64,889	65,776	1,652,275	67,504	326,224	317,323
Increase ..	17,456	437,654	2,182,616	20,272	101,851	87,384

Bacon-curing Establishments.

These were 39 in number, employing 196 hands, against 37 with 123 hands in 1895. The output increased in value from £86,022 for 1895 to £159,564 in 1900, the business done in hams having progressed very greatly.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Motive Power.			Horse-power.
		M.		M.	F.	Steam.	Water.	Gas.	
				£	£				H.-p.
1901	39	185	11	13,891	496	17	2	2	250
1896	37	118	5	7,314	80	7	1	..	49
Increase ..	2	67	6	6,577	416	10	1	2	201

Census Year.	Value of Material used.	Output for Year 1900.				Total Value of Output.	Approximate Value of *†		
		Bacon.	Hams.	Lard.	Other Products.		Land.	Buildings.	Machinery and Plant.
	£	Cwt.	Cwt.	Cwt.	£	£	£	£	£
1901 ..	115,656	34,103	21,836	2,082	4,182	159,564	19,377	25,960	16,855
1896 ..	65,867	33,260	800	20	..	86,022	6,823	11,090	4,605
Incr.	49,789	843	21,036	2,062	4,182	73,542	12,554	14,870	12,250

* Value of land and buildings given with butter-factory in one case. † Value of land, buildings, and plant not stated in one case.

Fish Curing and Preserving.

There was a considerable decrease shown in the quantity of fish cured in 1900 as compared with 1895, but the value of the lesser output was set down as £4,778 more than in the earlier year. The quantity cured in 1900 was 1,082,820 lb., against 1,719,512 lb. in 1895. The output of tinned fish increased from 113,304 lb. to 288,849 lb., and the total value of all products of the 28 establishments rose from £10,292 to £25,173.

Census Year.	Number of Works.	Hands employed. M.	Hands employed. F.	Wages paid. M.	Wages paid. F.	Value of Materials used 1900 and 1895.
				£	£	£
1901	28	135	2	7,445	73	7,714
1896	27	74	1	3,229	13	2,124
Increase ..	1	61	1	4,216	60	5,590

Census Year.	Fish cured. Quantity.	Fish cured. Value.	Fish tinned. Quantity.	Fish tinned. Value.	Value of other Produce.	Total Value of Output.	Approximate value of Land.	Approximate value of Buildings.	Approximate value of Machinery and Plant.
	lb	£	lb	£	£	£	£	£	£
1901 ..	1,082,820	13,182	288,849	6,206	5,785	25,173	9,937	3,858	3,440
1896 ..	1,719,512	8,404	113,304	1,888	..	10,292	3,902	3,782	2,045
Incr.	..	4,778	175,545	4,318	5,785	14,881	6,035	76	1,395
Decr.	636,692	..	..	..	..	..	..	..	..

Butter and Cheese Factories.

Here a most excellent result is shown by the comparison. Not only did the number of factories increase from 170 to 247 between 1896 and 1901, besides skimming stations and creameries in connection with them—202 against 105; but the number of persons employed was more than doubled (1,188 against 576), and the value of the output rose to three times the amount for 1895. The figures are, £1,535,350 for 1890, against £501,274 for 1895.

The produce of factory-made butter for 1900 was set down at 29,758,310 lb., and for 1895 at 11,336,776 lb., while cheese made similarly increased from 86,460 cwt. to 139,687 cwt. in the same period.

It is to be regretted that there is no estimate of butter and cheese made on farms, so that the total produce for the colony could be arrived at.

By far the greater number of factories for making butter are in the North Island, the number having been 174, out of a total of 247, which turned out 24,500,000 lb. of butter in the year 1900, leaving somewhat over 5,000,000 lb. as the output for the Middle Island. Taranaki is the provincial district in which the operations are by far the largest, 12,500,000 lb. of butter being the result of the factory operations, and nearly 32,000 cwt. of cheese. Wellington factories show for 1900 a total of over 7,500,000 lb. of butter and 32,000 cwt. of cheese. Otago makes more cheese (52,000 cwt.) in her factories than any other district. The butter was found to be a little short of 3,000,000 lb. for the year.

The money invested for purposes of this industry in land, buildings, machinery, and plant has largely increased. Full particulars are given in the subjoined table:—

Census Year.	No. of Factories.	Hands Employed.		Amount paid in Wages.		Machine-power used					Amount of Horse-power.
		M.	F.	M.	F.	Steam.	Water.	Gas and Oil.	Horse.	Hand.	
				£	£						H.-p.
1901 ..	247	1,165	23	95,461	972	223	37	8	1	2	2,399
1896 ..	170	548	28	39,716	441	234	33	1	3	7	1,531
Increase	77	617	..	55,745	531	..	4	7	..	..	868
Decrease	..	..	5	..	..	11	..	..	2	5	..

Census Year.	Produce for the Years 1900 and 1895.						Approximate Value of		
	Cheese.		Butter.		Other Produce.	Total Value of all Produce.	Land.	Buildings.	Machinery and Plant.
	Quan.	Value.	Quantity.	Value.	Value.				
	Tons.	£	Lb.	£	£	£	£	£	£
1901	6,984	303,758	29,758,310	1,203,520	27,872	1,535,150	38,780	147,307	202,663
1896	4,323	146,158	11,336,776	355,116	..	501,274	27,335	91,601	115,070
Incr.	2,661	157,600	18,421,534	848,404	27,872	1,033,876	11,445	55,706	87,593

Grain-mills.

In 1896 it was remarked in the Census report that the result of a five year's comparison was to show a decrease in the number of grain-mills in operation, and decline of hands employed, also in grain operated upon. The result for 1900 is more satisfactory.

Although the number of mills working fell from 90 in 1896 to 78 in 1900, the hands employed increased from 419 to 515, and the wheat used from 3,815,433 bushels to 4,004,789 bushels, besides a slight increase in other kinds of grain. The total value of the output, however, declined from £874,656 to £682,884. A statement is given, to exhibit full details:—

Census Year.	Number of Mills.	Number of Hands employed.		Wages paid.		Machine-power used.				Amount of Horse-power.	Number of	
		M.	F.	M.	F.	Steam.	Water.	Wind.	Gas.		Pairs of Stones.	Sets of Rollers.
				£	£					H.-p.		
1901 ..	78	513	2	49,254	110	45	35	..	3	2,422	83	429
1896 ..	90	419	..	40,890	..	51	45	1	1	2,333	144	406
Increase	..	94	2	8,364	110	..	..	..	2	89	..	23
Decrease	12	..	..	..	..	6	10	1	..	..	61	..

Census Year.	Grain operated upon during the Years 1900 and 1895.			Produce for the Years 1900 and 1895.			Approximate Value of		
	Wheat.	Other Grain.	Value.	Flour.	Meal.	Value.	Land.	Buildings.	Machinery and Plant.
	Bushels.	Bushels.	£	Tons.	Tons.	£	£	£	£
1901 ..	4,004,789	762,340	545,642	83,017	7,418	682,884	44,688	132,817	181,151
1896 ..	3,815,433	731,448	653,219	81,033	16,482	874,656	41,730	134,714	179,403
Incr.	189,356	30,892	..	1,984	..	..	2,958	..	1,748
Decr.	..	..	107,577	..	9,064	191,772	..	1,897	..

BISCUIT FACTORIES.

Twenty factories are shown as in operation in 1901 against 17 five years previously. But 109 more males and 133 more females were employed in the later year. The comparison shows that not much more was done in biscuit-making during the year 1900 than in 1895, the figures being 3,267 tons against 3,003 tons. But the returns for 1900 shows also confectionery made valued at £55,039, and other products to the value of £38,474. The total output came to £197,989, while in 1895 the sum was only £118,979.

Census Year.	Number of Works.	Hands.		Wages.		Machine-power used.		Horse-power.
		M.	F.	M.	F.	Steam.	Water and Gas.	
				£	£			H.-p.
1901 ..	20	454	213	34,231	4,545	11	5	291
1896 ..	17	345	80	18,801	1,355	10	4	134
Increase ..	3	109	133	15,430	3,190	1	1	157

Census Year.	Biscuits made.	Total Value of Manufactures for 1900 and 1895.	Approximate Value of		
			Land.	Buildings.	Machinery and Plant.
	Tons.	£	£	£	£
1901 ..	3,267	197,989*	14,940	35,567	39,736
1896 ..	3,003	118,979	11,340	21,575	25,951
Increase ..	264	79,010	3,600	13,992	13,785

FRUIT-PRESERVING AND JAM-MAKING.

The weight of fruit bottled or preserved in New Zealand during 1900 was returned at 84,500 lb, against 72,790 lb. in 1895. The jam manufacture increased considerably, the figures being 3,303,395 lb.,

* Including 1,286 tons confectionery, valued at £55,039, and other products valued at £38,474.

and 1,930,058 lb. for 1895. Other preserves were also made in 1900 to the extent of 179,532 lb. How it arises that the returns show fewer hands and factories at the time of last census than at the previous collection cannot be explained.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Machine-power used.		Amount of Horse-power.	Value of Materials used, 1900 and 1895.
		M.	F.	M.	F.	Steam.	Gas.		
				£	£			H.-p.	£
1901 ..	13	85	82	6,317	1,758	9	2	117	42,404
1896 ..	22	103	90	5,101	1,450	6	..	77	20,542
Increase ..	..	..	..	1,216	308	3	2	40	21,862
Decrease ..	9	18	8	..	..	..	..	..	..

Census Year.	Manufactures, 1900 and 1895.				Other Preserves.		Value of all Manufactures, 1900 and 1895.	Approximate Value of		
	Fruit bottled or preserved.		Jam made.					Land.	Buildings.	Machinery and Plant.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.				
	Lb.	£	Lb.	£	Lb.	£	£	£	£	£
1901..	84,500	950	3,303,395	54,120	179,532	3,022	58,092	5,160	9,835	5,940
1896..	72,790	1,676	1,930,058	33,355	52,118	1,077	36,108	4,504	9,865	4,498
Incr.	11,710	..	2,373,337	20,765	127,414	1,945	21,984	656	..	1,442
Decr.	..	726	..	..	..	..	..	..	30	..

Confectionery Works.

This industry is becoming an important one. The value of the manufactured articles for the year 1900 reached the sum of £88,580, which is £55,345 in excess of the value returned for 1895. The number of establishments was 26, and the hands employed show an increase from 69 to 305, of whom 147 were females.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Motive-power.		Horse-power.	Value of Materials used in 1900 and 1895.
		M.	F.	M.	F.	Steam.	Gas.		
				£	£			H.p.	£
1901 ..	26	158	147	11,128	3,600	1	2	19	47,150
1896 ..	12	39	30	2,253	561	*	*	21	14,887
Incr.	14	119	117	8,875	3,039	..	..	..	32,263
Decr.	..	..	..	..	..	..	..	2	..

* Information not available.

Census Year.	Sugar used.		Other Materials used.	Total Value of Output for 1900 and 1895.	Approximate Value of		
	Quantity.	Value.	Value.		Land.	Buildings.	Machinery and Plant.
	Tons.	£	£	£	£	£	£
1901 ..	1,400	28,440	18,710	88,580	21,271	17,709	17,975
1896 ..	*	*	*	33,235	2,610	3,850	2,465
Increase	..	..	..	55,345	18,661	13,859	15,510

* Information not available.

BREWERIES.

Although the number of breweries in the colony in 1901 was fewer than that for 1896, the hands employed were more numerous, and the quantity of beer manufactured considerably greater.

While in the year 1895 there were 5,249,278 gallons brewed, the output for 1900 amounted to 7,379,581 gallons, being over two millions of gallons of increase in a five-year period; and the value increased proportionately.

The quantities of beer on which excise-duty was paid for consumption were, for 1895, 4,936,400 gallons, and 6,811,280 gallons for 1900, being in each case a somewhat lesser quantity than that returned as manufactured.

It was noticed in the report on the Census of 1896 that consumption of beer per head of population had fallen since 1891 from 7·899 gallons in 1890 to 7·421 gallons in 1895, and the quantity manufactured showed very little increase. But from 1895 to 1900, as shown above, the brewing proceeded at a considerable rate, and the consumption per head has advanced from 7·421 gallons to 9·150 gallons. No doubt prosperous times have brought about this result.

The imported beer entered at the Customs for home consumption decreased in quantity from 201,770 gallons in 1895 to 175,620 gallons in 1900, proving that the colonial-made article is more and more taking the place of the beer brought from abroad. In the year 1892 261,394 gallons were brought into New Zealand.

Census Year.	No. of Breweries.	Hands.		Wages paid.		Motive-power employed.					
		M.	F.	M.	F.	Steam.	Water.	Gas.	Wind.	Horse.	Hand.
				£	£						
1901 ..	74	677	5	83,493	77	56	6	6	1	3	3
1896 ..	85	465	..	57,327	..	56	6	4	2	5	14
Increase ..	..	212	5	26,166	77	..	..	2	..	..	..
Decrease ..	11	..	..	..	..	..	..	..	1	2	11

Census Year.	Amount of Horse-power.	Number of		Materials used during Years 1900 and 1895.			
		Horses employed.	Drays employed.	Sugar.	Malt.	Hops.	Value.
				Lb.	Bush.	Lb.	£
1901 ..	632	176	149	2,424,505	455,035	562,245	158,212
1896 ..	441	180	149	1,607,144	328,059	424,839	125,706
Increase ..	191	..	..	817,861	126,976	137,406	32,506
Decrease ..	..	4	..	..	..	..	..

Census Year.	Beer made, 1900 and 1895.		Approximate Value of		
	Quantity.	Value.	Land.	Buildings.	Machinery and Plant.
	Gal.	£	£	£	£
1901	7,379,581	553,627	78,694	139,014	76,884
1896	5,249,278	336,734	51,533	115,033	63,850
Increase ..	2,130,303	216,893	27,161	23,981	13,034

Malthouses.

At 33 malthouses, which were in connection with the breweries before mentioned, 623,686 bushels of barley were malted, being in excess of the quantity for 1895 by 267,278 bushels, or nearly 75 per cent. The large additional quantity of beer made in 1900 required increased operations in malting.

Census Year.	Number of Works.	Hands Employed.	Wages paid.	Machine-power used.					Amount of Horse-power.
				Steam.	Water.	Gas.	Horse.	Hand.	
			£						H.-p.
1901 ..	33	145	14,994	5	1	4	2	21	110
1896 ..	31	95	9,398	3	1	1	1	25	59
Increase	2	50	5,596	2	..	3	1	..	51
Decrease	..	..	..	..	..	..	..	4	..

Census Year.	Value of Materials used.	Barley malted, 1900, 1895.		Approximate Value of		
		Quantity.	Value.	Land.	Buildings.	Machinery and Plant.
	£	Bushels.	£	£	£	£
1901 ..	72,211	623,686	105,671	23,920	41,110	10,008
1896 ..	52,881	356,408	82,096	6,685	27,910	2,909
Increase	19,330	267,278	23,575	17,235	13,200	7,099

Note.—In some cases the value of land, buildings, and plant has been included in the returns furnished by proprietors of breweries to which the malthouses belong.

COLONIAL-WINE MAKING.

Besides 26,513 gallons of colonial wine made in 1900, and also 400 gallons of brandy used to fortify the wine, 27,537 gallons of cider were manufactured. These results are satisfactory on comparison with those of 1895, when the wine amounted to 15,860 gallons. The quantity of cider increased from 19,178 gallons to 27,537 gallons. The value of produce increased from £8,963 in 1895 to £10,330 in 1900.

Census Year.	Number of Works.	Hands.		Wages.		Machine-power used: Steam.	Horse-power.	Wine made.	Cider.	Value of Products, 1900-1895.	Approximate Value of		
		M.	F.	M.	F.						Land.	Buildings.	Machinery and Plant.
				£	£		H-p.	Galls.	Galls.	£	£	£	£
1901 ..	14	49	10	2,320	92	2	14	26,513	27,537	10330	10156	5,074	2,953
1896 ..	19	41	12	1,925	95	2	6	15,860	19,178	8,963	8,224	2,929	1,679
Incr.	..	8	..	395	..	..	8	10,653	8,359	1,367	1,932	2,145	1,274
Decr.	5	..	2	..	3	..	..	..	..	..	..	..	..

AERATED-WATER AND CORDIAL FACTORIES.

Although the number of factories under this head slightly decreased between the censuses of 1896 and 1901, the operations were very much greater in the year 1900 than in 1895, and with this is shown increase of value of manufactures, as well as quantity, to a considerable extent, besides a greater number of persons employed.

The money value of all manufacture for 1900 amounted to £151,811, against £98,609 in 1895; an increase of nearly 54 per cent. Over £10,000 of additional money was paid in wages during the later year, while an increase from 1,091,580 dozen of aerated-water bottled to 1,886,024 dozen, besides a greatly enlarged business in cordials, tonic beer, and other drinks is recorded. The full particulars are tabulated below:—

Census Year.	No. of Works.	Hands employed.		Wages paid.		Machine-power used.					Horse-power.
		M.	F.	M.	F.	Steam.	Water.	Horse.	Gas.	Hand, Oil, and Electrical.	
				£	£						H.-p.
1901 ..	125	437	15	31,771	284	49	10	21	34	12	250
1896 ..	132	330	17	21,184	261	46	17	11	24	35	216
Incr.	..	107	..	10,587	23	3	..	10	10	..	34
Decr.	7	..	2	..	..	..	7	..	..	23	..

Census Year.	Manufactures for the Years 1900 and 1895.						Total Value of Manufactures	Approximate Value of		
	Aerated Waters.	Cordials.	Tonic Beer.	Miscellaneous.		Cider.		Land.	Buildings.	Machinery and Plant.
				Quan.	Value.					
	Doz.	Doz.	Doz.	Gals.	£	Gals.	£	£	£	£
1901 ..	1,886,024	25,478	89,821	13,356	5,356	9,950	151,811	33,037	34,875	37,266
1896 ..	1,091,580	20,720	17,415	8,907*	1,350	†50	98,609	19,476	32,439	37,429
Inc.	794,444	4,758	72,406	4,449	4,006	..	53,202	13,561	2,436	..
Dec.	..	..	..	..	..	..	..	..	..	163

* Including 6,000 gallons vinegar. † Casks.

Coffee and Spice Works.

The number of these works was 18, the same as in 1896, but the hands fell from 119 to 78. The value of manufactured goods declined from £74,339 to £45,628 in the five years.

Sauce- and Pickle-making.

This industry progresses steadily. It employed 77 males and 51 females in 1901. Sauces and pickles were manufactured to the value of £31,258 in the previous year, more than double the amount made five years ago.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Machine-power used.	Amount of Horse-power.	Value of Materials used.
		M.	F.	M.	F.	Steam.		
				£	£		H.-p.	£
1901 ..	23	77	51	4,628	1,760	4	71	20,505
1896 ..	24	44	24	1,835	622	3	57	7,934
Increase ..	..	33	27	2,793	1,138	1	14	12,571
Decrease ..	1	..	..	..	..	..	..	..

Census Year.	Manufactures for the Years 1900 and 1895.					Total Value of Manufactures.	Approximate Value of		
	Sauces.		Pickles.		Other Condiments.		Land.	Buildings.	Machinery and Plant.
	Quantity.	Value.	Quantity.	Value.					
	Doz. Pnts	£	Doz. Pnts	£	£	£	£	£	£
1901 ..	44,604	11,128	31,110	10,378	9,752	31,258	17120	12,375	7,220
1896 ..	20,539	6,229	9,949	3,793	3,395	13,417	5175	5,160	1,574
Increase	24,065	4,899	21,161	6,585	6,357	17,841	11945	7,215	5,646

Soap and Candle Works.

The development of these works was at a moderate rate only between 1896 and 1901, the value of manufactures of all kinds reaching to £158,649 for the year 1900, and £152,298 for 1895. In 1900, 92,321 cwt. of soap were made, and 26,690 cwt. of candles, besides other manufactures to the value of £20,611.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Machine-power used.		Amount of Horse-power.	Value of Materials used.
		M.	F.	M.	F.	Steam.	Water, Gas, Hand.		
				£	£			H.p.	£
1901 ..	24	224	8	19,009	239	20	4	346	112,623
1896 ..	22	187	3	16,882	21	17	..	252	98,194
Increase ..	2	37	5	2,127	218	3	4	94	14,429

Census Year.	Manufactures for 1900 and 1895.				Total Value of Manufactures.	Approximate Value of		
	Soap.		Candles.	Value of other Manufctrs		Land.	Buildings.	Machinery and Plant.
	Quantity.	Value.	Value.					
	Cwt.	£	£	£	£	£	£	£
1901 ..	92,321	76,591	61,447	20,611	158,649	10,432	27,184	29,193
1896 ..	85,637	71,382	58,512	22,404	152,298	9,884	20,110	28,832
Increase	6,684	5,209	2,935	..	6,351	548	7,074	361
Decrease	..	..	..	1,793	..	..	..	..

Cooperages.

These numbered 23, according to the returns for 1901. 47,072 casks were made in 1900, against 33,418 in 1895, and the manufacture of kegs increased greatly. The 1901 returns show also the construction of butter-boxes to the number of 159,147, and of cheese-cases 33,165, against 78,378 and 3,660 respectively for 1896.

Census Year.	Number of Works.	Hands employed.		Wages.	Machine-power used.		Horse-power.	Value of Materials used.
		M.	F.		Steam.	Gas.		
				£			H.-p.	£
1901	23	137	1	10,923	16	1	177	19,942
1896	21	76	..	4,250	10	..	110	10,281
Increase ..	2	61	1	6,673	6	1	67	9,661

Census Year.	Manufactures for the Years 1900 and 1895.				Total Value of Output.	Approximate Value of		
	Kegs.	Casks.	Butter boxes.	Cheese-cases.		Land.	Buildings.	Machinery and Plant.
	No.	No.	No.	No.	£	£	£	£
1901	12,585	47,072	159,147	33,165	37,521	5,669	7,815	8,303
1896	1,680	33,418	78,378	3,660	19,233	3,297	3,353	4,525
Increase ..	10,905	13,654	80,769	29,505	18,288	2,372	4,462	3,778

Sawmills, and Sash and Door Factories.

There has been a very great development of this industry since 1896. Although only 35 additional mills were returned as working in 1901, the hands employed increased from 4,059 to 6,812, and the (first-cut) sawn timber from 191,053,466 ft. to 261,583,518 ft., an addition of 70,530,052 ft. The figures given for resawing, moulding, &c., show a retrograde movement, but the number of doors and sashes made increased from 61,550 to 91,376 in five years; and the total money value of all manufactures or produce of the sawmills reached the sum of £1,268,689 against £898,807 at the previous census. The value of the plant largely increased.

The quantity of first-cut sawn timber for the year 1900 was far greater in the Auckland Provincial District than in any other, the order being as follows:—

	Feet of Timber sawn (first cutting).
Auckland	109,124,543
Wellington	41,375,471
Otago	40,482,149
Hawke's Bay	22,382,990
Westland	13,971,951
Nelson	12,212,951
Taranaki	11,881,139
Marlborough	5,437,365
Canterbury	4,714,959

The increase at Auckland in five years is from 79,464,526 ft. to 109,124,543 ft. At Westland also the increase is noticeably great, considering the magnitude of the industry there.

Census Year.	No. of Mills.	Hands employed.		Wages paid.		Motive-power used.			Amount of Horse-power.
		M	F.	M.	F.	Steam.	Water.	Gas.	
				£	£				H.-p.
1901.. ..	334	6,805	7	513,622	266	317	24	3	8,744
1896.. ..	299	4,055	4	323,223		274	29	1	6,409
Increase ..	35	2,750	3	190,665		43	..	2	2,335
Decrease ..	..	..	..	..		..	5	..	..

Output for the Years 1900 and 1895.

Census Year.	Sawn Timber.		Value of Posts, Rails, &c.	Re-sawing, Planed, Flooring, Skirting, &c.		Mouldings.	
	Quantity.	Value.		Quantity.	Value.	Quantity.	Value
	Ft.	£	£	Ft.	£	Run. ft.	£
1901 ..	261,583,518	971,048	19,277	34,824,246	172,127	9,152,598	42,970
1896 ..	191,053,466	627,959	10,998	41,026,223	173,765	12,653,368	44,104
Inc. ..	70,530,052	343,089	8,279	..	..	..	..
Dec. ..	..	..	..	6,201,977	1,638	3,500,770	1,134

Census Year.	Output for 1900 and 1895—*continued.* Doors and Sashes.		Total Value of all Output.	Approximate Value of		
	Quantity.	Value.		Land.	Buildings	Machinery and Plant.
	No.	£	£	£	£	£
1901 ..	91,376	63,267	1,268,689	187,398	108,015	408,207
1896 ..	61,550	41,981	898,807	186,958	100,667	298,797
Inc. ..	29,826	21,286	369,882	440	7,348	109,410

GASWORKS.

The operations of the gasworks in the colony for the year 1900, contrasted with those for 1895 and 1890, show such expansion as must be considered highly satisfactory, and this notwithstanding the increased use of electricity in substitution for gas.

There were 30 gasworks at the time of the census of 1901, employing 572 hands, against 27, with 295, in 1896. The wages paid in 1900 amounted to over £70,000 sterling, against £38,000 in 1895, and the value of all produce was £290,567, against £199,025.

In quantity, 786 million cubic feet of gas are shown to have been manufactured in 1900, against 532 million feet for 1895, besides increased quantities of coke, tar, and other residuals.

Census Year.	No. of Works.	Hands employed.		Wages paid.		Machine-power used.			Amount of Horse-power.	Produce for the Years 1900 and 1895. Gas made.	
		M.	F.	M.	F.	Steam.	Water.	Gas.		Quantity.	Value.
				£	£				H.-p.	Cubic feet.	£
1901 ..	30	568	4	70,388	185	24	1	12	242	786,531,150	245,000
1896 ..	27	293	2	37,747	102	19	1	8	126	532,060,800	178,196
Increase	3	275	2	32,641	83	5	..	4	116	254,470,650	66,804

Census Year.	Produce for the Years 1900 and 1895—*continued.*					Approximate Value of			
	Coke.		Tar.		Other Residuals: Value.	Total Value of all Produce.	Land.	Buildings.	Machinery and plant.
	Quantity.	Value.	Quantity.	Value.					
	Tons.	£	Gallons.	£	£	£	£	£	£
1901 ..	38,830	32,968	693,181	11,665	934	290,567	65,555	88,874	817,130
1896 ..	17,339	14,446	345,632	4,649	1,734	199,025	41,422	79,610	645,641
Incr.	21,491	18,522	347,549	7,016	..	91,542	24,133	9,264	171,489
Decr.	..	..	..	..	800	..	..	..	..

Lime and Cement Works.

Fifteen of these works, employing 184 hands, were in operation in 1901. In 1896, only 79 hands were returned. The value of manufacture for 1900 was three times as great as that for 1895, and that of machinery used more than doubled during the five years.

Census Year.	Number of Works.	Hands employed.	Wages paid.	Motive Power.		Horse-power.
		Males.	Males.	Steam.	Horse.	
			£			H.-p.
1901	15	184	16,577	3	2	466
1896	14	79	5,560	..	..	289
Increase ..	1	105	11,017	..	..	177

Census Year.	Value of Materials used in 1900 and 1895.	Total Value of Manufactures for 1900 and 1895.	Approximate Value of		
			Land.	Buildings.	Machinery and Plant.
	£	£	£	£	£
1901	18,397	45,142	3,881	10,218	24,337
1896	4,631	15,881	3,181	7,270	11,968
Increase ..	13,766	29,261	700	2,948	12,369

Brick, Tile, and Pottery Works.

These works employed in 1900 close on double the number of hands that were engaged in 1895, and the number of bricks rose from 18,800,000 to 40,900,000 for those years. The value of pottery made, including drain-pipes, rose from £31,503 to £34,810; and the total value of all the manufactures from £66,140 to £122,230.

Otago shows first in the output of bricks made, Canterbury next, then Auckland, while Wellington takes the fourth place. The number of brick, stone, or concrete houses increased between the last two censuses from 6,490 to 7,517, a rate of 13·66 per cent., while those of cob, sod, huts, &c., decreased substantially in number. Houses built of wood or iron increased from 134,092 to 153,945, the rate, 14 per cent., being slightly higher than that which obtained for brick and stone dwellings.

Census Year	Number of Works.	Hands employed.		Wages paid.		Machine-power used.					Amount of Horse-power.	Number of Machines used.	
		M.	F.	M.	F.	Steam.	Gas.	Horse.	Water.	Hand.		For tempering or crushing Clay.	For making Bricks or Pottery.
				£	£						H.p.		
1901 ..	108	838	..	63,336	..	63	1	39	1	4	659	109	77
1896 ..	108	454	1	28,179	50	38	1	70	..	1	519	108	92
Increase	..	384	..	35,157	..	25	..	..	1	3	140	1	..
Decrease	..	..	1	..	50	..	..	31	..	..	..	..	15

Census Year.	Manufactures for the Years 1900 and 1895.					
	Bricks made.			Pottery, &c., made.		
	Common.	Fire-bricks.	Value.	Drain-pipes.	Tiles.	Flower-pots.
	No.	No.	£	No.	No.	Doz.
1901 ..	40,976,765	313,551	86,578	1,226,296	310,076	3,111
1896 ..	18,805,715	193,600	34,637	1,175,065	464,851	8,347
Increase	22,171,050	119,951	51,941	51,231	..	..
Decrease	..	..	..	..	154,775	5,236

Census Year.	Manufactures, 1900 and 1895—*continued.*		Total Value of Manufactures.	Approximate Value of		
	Pottery, &c., made.			Land.	Buildings.	Machinery and Plant.
	Miscellaneous: Value.	Total Value of Pottery, &c.				
	£	£	£	£	£	£
1901 ..	7,475	34,810	122,230	41,123	37,718	35,726
1896 ..	4,249	31,503	66,140	24,074	24,917	27,594
Increase	3,226	3,307	56,090	17,049	12,801	8,132

Tinware Factories.

A large development is observed in respect of this industry. The value of the manufacture rose from £63,723 in 1895 to £98,587 in 1900. In 1890 the value of the goods was only £14,297. The number of hands increased from 289 to 337 in five years, and the establishments from 34 to 60, and the wages paid from £19,742 to £23,107. But the increase shown in this industry is largely due to the inclusion in the later year of small establishments of which no account was taken in 1896.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Motive Power.		
		M.	F.	M.	F.	Steam.	Water.	Gas.
				£	£			
1901	60	336	1	23,107	36	1	1	7
1896	34	288	1	19,742	..	*	*	*
Increase ..	26	48	..	3,365	36	..	..	..

Census Year.	Horse-power.	Value of Materials used in 1900 and 1895.	Total Value of Manufactures and Repairs in 1900 and 1895.	Approximate Value of		
				Land.	Buildings.	Machinery and Plant.
	H.-p.	£	£	£	£	£
1901	23	52,553	98,587	24,907	22,100	9,907
1896	27	32,835	63,723	10,660	7,475	7,714
Increase ..	..	19,718	34,864	14,247	14,625	2,193
Decrease ..	4	..	..	..	..	..

* Information not available.

Iron and Brass Foundries; Boiler and Range-making; with Engineering.

The total value of the manufacture (including repairs) in connection with these industries was returned for the year 1900 at £924,171, or more than three times the amount for 1895, which was £302,815. This great increase is nearly all found in the figures for Otago, where the value of manufacture given at last census had reached £512,021, no doubt being swelled by the dredge-making work. There were 1,948 more hands employed in 1901 than five years previously, or an increase of 118·64 per cent., the actual number of persons being 3,590, against 1,642 for the earlier year. That a considerable development of the business would be exhibited was of course expected, on account of the stimulus given by the growing requirement for dredges in procuring gold from river-beds, &c.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Horse-power.
		Male	Female.	Male.	Female.	
				£	£	H.-p.
1901	111	3,580	10	306,779	431	1,577
1896	90	1,639	3	129,699	64	1,093
Increase ..	21	1,941	7	177,079	367	484

Census Year.	Value of Materials used or operated on.	Total Value of Manufactures (including Repairs).	Approximate Value of		
			Land.	Buildings.	Machinery and Plant.
	£	£	£	£	£
1901	446,507	924,171	127,346	89,001	177,935
1896	100,273	302,815	70,811	55,152	126,172
Increase ..	346,234	621,356	56,535	33,849	51,763

NOTE.—The above table does not include fifteen Government Railway and Maintenance workshops (eight Railway workshops and seven Maintenance workshops): Hands employed in year 1900, 1,626; wages paid, £185,355; horse-power employed 760; materials used, £192,050; manufactures and repairs (3 locomotives, 34 bogie carriages, 20 bogie brake-vans, 441 wagons, 1,102 taupaulins, and repairs to the value of £36,306); the total value of manufactures and repairs in the Railway workshops being £365,946, and the value of machinery and plant, £97,659. The value of materials used and value of repairs are not stated in Maintenance workshops returns.

AMMUNITION WORKS.

There is an ammunition factory in the Auckland District, where 105 hands are actively employed. To give more details might be considered a breach of confidence.

AGRICULTURAL IMPLEMENT FACTORIES.

Although the numbers of factories and hands employed as shown in the latest returns do not indicate development, the total value of all manufacture appears to have increased from £102,054 to £138,094, including repairs. The number of implements made during 1900 is greater under nearly all descriptions than for 1895.

From whatever cause it may arise that the hands are returned as only 584, against 581 in 1895, the fact remains that the operations in the factories were very much greater in 1900 than five years before. This is clearly shown, both as to money value for the total and as to number of implements, under a long series of descriptive headings:—

Census Year.	Number of Works.	Hands employed.		Wages paid.		Motive-power.		Horse-power.	Value of all Materials used.
		M.	F.	M.	F.	Steam.	Water.		
				£	£				£
1901 ..	33	584	2	53,879	62	23	1	360	49,072
1896 ..	34	581	..	44,581	..	23	..	217	26,904
		3	2	9,298	62	..	1	143	22,168
Increase ..	..								
Decrease ..	1	..	..	..	..	..	..	..	..

Census Year.	Manufactures for Years 1900 and 1895.								
	Ploughs.	Harrows.	Disc and Spade Harrows.	Horse-hoes, Cultivators, and Grubbers.	Sowers and Drills.	Rollers.	Farm Drays and Wagons.	Horse Hay-rakers.	Chaff-cutters.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
1901.. ..	869	864	344	292	219	242	358	22	196
1896.. ..	590	578	208	377	182	104	169	18	38
Increase ..	279	286	136	..	37	138	189	4	158
Decrease ..	..	..	..	85	..	..	..	..	..

Census Year.	Manufactures for Years 1900 and 1895—*continued.*							
	Turnip-cutters	Seed Threshing and Cleaning Machinery	Straw elevators.	Windmills.	Wool-presses.	Swingletrees and Yokes.	Sheep-racks.	Various Machines Unspecified (Value).
	No.	No.	No.	No.	No.	No.	No.	£
1901	46	25	17	75	89	1,845	..	15,157
1896	18	6	4	69	95	69	31	12,743
Increase	28	19	13	6	..	1,776	..	2,414
Decrease	..	..	..	..	6	..	31	..

Census Year.	Total Value of Manufactures (including Repairs).	Approximate Value of		
		Land.	Buildings.	Machinery and Plant.
	£	£	£	£
1901	138,094	19,591	21,504	20,244
1896	102,054	19,900	21,336	30,031
Increase	36,040	..	168	..
Decrease	..	309	..	9,787

Printing and Bookbinding Establishments.

This industry ranks amongst the first in respect of employment of hands. 2,627 males and 507 females were returned as engaged in it at last census, the males increasing from 2,123 in 1896 to 2,627 in 1901. Female hands have increased greatly. In 1891 there were only 196; in 1896 the number was 228, while in 1901 it had risen to 507, women and girls. As to the value of product it was set down for the year 1900 at £704,285, against £389,124 five years earlier; but how far these last figures can be relied on is uncertain. There is difficulty in making them up.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Machine-power used.		
		M.	F.	M.	F.	Steam.	Water.	Gas.
				£	£			
1901 ..	188	2,627	507	268,041	16,564	19	14	93
1896 ..	154	2,123	228	204,165	12,137	22	16	50
Increase	34	504	279	63,876	4,427	..	..	43
Decrease	..	..	..	..	..	3	2	..

Census Year.	Machine-power used—*continued.*			Horse-power.	Value of all Products.	Approximate Value of		
	Electric.	Oil.	Hand.			Land.	Buildings.	Machinery and Plant.
				H.-p.	£	£	£	£
1901 ..	5	8	73	956	704,285	109,130	160,787	289,621
1896 ..	..	3	64	532	389,124	68,847	124,369	203,699
Increase	5	5	9	424	315,161	40,283	36,418	85,922

NOTE.—The table does not include particulars for Government Printing Office.

COACH-BUILDING AND PAINTING.

The value of the manufacture and repairs rose from £148,969 in 1895, to £216,077 in 1900, an increase of £67,108, or a rate of 45·05 per cent. The hands employed also increased from 807 to 1,185.

Census Year.	Number of Works.	Hands employed.	Wages paid.	Machine-power used.		
		M.	M.	Steam.	Gas.	Water.
			£			
1901	160	1,185	83,356	17	9	2
1896	116	807	57,377	19	4	2
Increase ..	44	378	25,979	..	5	..
Decrease ..	..	..	..	2	..	..

Census Year.	Amount of Horse-power.	Total Value of Manufactures (including Repairs).	Approximate Value of		
			Land.	Buildings.	Machinery and Plant.
		H.-p.	£	£	£
1901 ..	128	216,077	70,622	55,972	24,217
1896 ..	119	148,969	41,376	40,076	24,350
Increase ..	9	67,108	29,246	15,896	..
Decrease ..	..	..	..	..	133

Cycle Works.

A very great advance has been made since 1896, as the number of works was found to be 71 against 19, and 378 males besides 17 females were engaged, being an increase of 270 persons on the number previously shown. The value of the manufacture and repairs rose from £18,817 for the year 1895 to £65,047 for 1900, or at the rate of 245·7 per cent. Cycles being now used not only for pleasure and exercise, but also in business to a certain extent, the industry of making and repairing these articles is necessarily found expanding with time.

Among the establishments shown for 1901 there are indeed a considerable number of purely repairing-shops, and these were not taken into account at the previous census. But apart from this qualification the returns show a large genuine increase in the operations.

Census Year.	Number of Works.	Hands.		Wages.		Machine-power used.			Amount of Horse-power.
		M.	F.	M.	F.	Steam.	Gas.	Water.	
				£	£				H.-p.
1901	71	378	17	20,873	570	4	15	1	95
1896	19	125	..	5,952	..	4	4	..	33
Increase ..	52	253	17	14,921	570	..	11	1	62

Census Year.	Value of Materials used in 1900 and 1895.	Number of Cycles manufactured in 1900 and 1895.	Total Value of Manufactures (including Repairs), 1900 and 1895.	Approximate Value of		
				Land.	Buildings.	Machinery and Plant.
	£		£	£	£	£
1901	26,824	1,988	65,047	31,465	24,431	9,507
1896	7,696	734	18,817	7,925	12,240	4,666
Increase ..	19,128	1,254	46,230	23,540	12,191	4,841

Saddlery and Harness Works.

Of these, 115 were returned. In the total value of manufacture and repairs there is an increase, caused chiefly by the inclusion in 1901 of small saddlers' shops which were not reckoned as factories in 1896.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Value of Materials used, 1900.
		M.	F.	M.	F.	
				£	£	£
1901*	115	629	23	40,808	1,026	75,724

* Including a number of small saddlery and harness-making concerns, which were not dealt with as "factories" at the previous census.

Census Year.	Total Value of Manufactures (including Repairs), 1900.	Approximate Value of		
		Land.	Buildings.	Machinery and Plant.
	£	£	£	£
1901*	147,626	54,380	37,035	5,144

* Including a number of small saddlery and harness-making concerns, which were not dealt with as "factories" at the previous census.

Brush and Broom Making.

These works numbered 12 in 1901, against 15 in 1896. The hands employed numbered 128 at last census, and the value of manufactured articles for the year 1900 was returned at £21,131.

Fellmongering, Tanning, Currying, and Woolscouring.

Good progress was made in this industry between 1896 and 1901, not so much in the direction of increasing the number of establishments, but in hands employed, with quantity and value of manufacture. The hands increased from 1,629 to 1,963, and the wool scoured or sliped from 19,723,481 lb. to 25,793,239 lb. The value of all produce or manufacture for 1900 was £1,888,107, against £1,237,252 in 1895, or more than 50 per cent. in five years.

Census Year.	No. of Works.	Hands employed.		Wages paid.		Motive Power.				Horse-power.	Number of Tan-pits.	Value of Hides, Skins, &c., operated on.	Value of Bark, Coal, Soap, &c.
		M.	F.	M.	F.	Steam.	Water.	Gas.	Oil.				
	No.	No.	No.	£	£					H.-p.	No.	£	£
1901 ..	119	1,957	6	159,180	162	57	9	1	1	1,108	1,216	1,161,965	229,358
1896 ..	117	1,623	6	116,715	268	49	8	..	1	686	1,252	..	134,176
Increase	2	334	..	42,465	..	8	1	1	..	422	..	..	95,182
Decrease	..	..	..	..	106	..	..	..	..	..	36	..	..

Census Year.	Tons of Bark used, and Kind.					Manufactures or Produce for the Years 1900 and 1895.		
	Wattle.		New Zealand.	Other Kinds.	Total.	Wool Scoured and Slipped.	Skins stripped of Wool.	Hides tanned.
	Australia.	Tasmania.						
	Tons.	Tons.	Tons.	Tons.	Tons.	Lb.	No.	No.
1901 ..	3,384	305	465	1,177	5,331	25,793,239	4,026,598	178,075
1896 ..	3,419	1,423	359	24	5,225	19,723,481	3,879,560	154,505
Increase	..	..	106	1,153	106	6,069,758	147,038	23,570
Decrease	35	1,118	..	..	..	..	..	..

Census Year.	Manufactures or Produce for the Years 19 0 and 1895—*cont.*			Total Value of Produce and Manufactures for the Years 1900 and 189 .	Approximate Value of		
	Skins tanned.	Pelts Salted or Preserved.	Other Products.		Land.	Buildings.	Machinery and Plant.
	No.	No.	£	£	£	£	£
1901 ..	272,775	4,031,974	54,296	1,888,107	52,319	102,855	80,778
1096 ..	856,918	1,418,792	..	1,237,252	41,490	77,186	52,729
Increase	..	2,613,182	..	650,855	10,829	25,669	28,049
Decrease	584,143	..	..	..	..	..	..

Ship and Boat Building.

The reports on the censuses of 1891 and 1896 were to the effect that this industry was not shown as a thriving one by the returns. In the table now put forward the results are better, as to number of hands employed, vessels built, and total value of all manufacture for the year 1900. But the number of establishments has fallen from 40 to 32, and boat-building is shown to have declined.

Census Year.	Number of Yards.	Hands employed.	Wages paid.	Total Value of all Manufactures (including Repairs), 1900 and 1895.
		M.	M.	
			£	£
1901	32	211	13,476	45,811
1896	40	108	6,724	25,233
Increase ..	..	103	6,752	20,578
Decrease ..	8	..	..	..

Sail, Tent, and Oilskin Factories.

As with the ship and boat-building yards, these industries show a decrease in the number of works, but a considerable increase in the number of hands employed, and in the value of the output The total value of manufactures in 1900 was returned at £44,854. against £30,166, in 1895.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Value of Materials used.	Total Value of all Manufactures, 1900 and 1895.	Approximate Value of		
		M.	F.	M.	F.			Land.	Buildings.	Machinery and Plant.
				£	£	£	£	£	£	£
1901 ..	30	150	81	10,446	1,996	24,628	44,854	22,976	15,700	2,217
1896 ..	39	92	51	5,660	1,361	..	30,166	13,105	9,825	693
Increase ..	..	58	30	4,786	635	..	14,688	9,871	5,875	1,524
Decrease	9	..	..	..	..	..	..	..	..	..

Furniture Factories.

In this branch of industrial work fuller returns have been obtained for 1901 than were secured in 1896. It may be taken, however, as a fact that a substantial rise took place during the five years in the operations of these establishments.

Census Year.	No. of Factories.	Hands employed.		Wages paid.		Motive-power.				
		M.	F.	M.	F.	Steam.	Water.	Gas.	Oil.	Electric.
				£	£					
1901 ..	144	1,243	67	88,843	2,262	17	4	29	2	3

Census Year.	Horse-power.	Value of Material used.	Total Value of all Manufactures.	Approximate Value of		
				Land.	Buildings.	Machinery and Plant.
	H.-p.	£	£	£	£	£
1901	369	101,595	241,024	75,200	71,884	23,254

Chemical Works.

There was up to 1896 a steady growth in the value of the manufacture, from £34,283 in 1885 to 41,586 in 1890, and to £75,320 in 1895; but the value of output for 1900 was £64,834 only. Ninety-five hands were employed at last census in eight establishments.

Woollen Mills.

The woollen mills of the colony are now ten in number, and employed 1,693 persons in 1901, 769 being males, and 924 females. These factories, therefore, provide more occupation for women and girls than for the male sex. The increase in male hands employed is from 655 in 1896 to 769 in 1901, and in females from 761 to 924. In 1891 there were only 373 women and 200 girls.

As to value of manufacture of all kinds, the increase is at the rate of 19 per cent. for five years; the figures being £302,423 for 1895 and £359,382 for 1900.

The increase in quantity of tweed made, from 1,297,012 yards in 1895 to 1,445,867 yards in 1900, or about 12 per cent., is not so great as that in flannel, the production of which reached 1,191,234 yards for 1900. The production of blankets has also greatly developed, the figures being 28,576 pairs in 1895, and 49,523 pairs in 1900. Rugs, shawls, hosiery, and yarn also show high increases:—

Census Year.	Number of Works.	Hands employed.		Wages.		Machine-power used.		Horse-power.
		M.	F.	M.	F.	Steam.	Water.	
				£	£			H.-p.
1901	10*	769	924	71,454	40,547	9	·2	1,554
1896	9	655	761	59,583	32,036	9	·2	1,400
Increase ..	1	114	163	11,871	8,511	..	..	154

Census Year.	Wool used in 1900 and 1895.		Value of Other Materials used.	Manufactures for the Years 1900 and 1895.			
	Quantity.	Value.		Tweed.	Cloth.	Flannel.	Blankets.
	Lb.	£	£	Yds.	Yds.	Yds.	Pairs.
1901	3,257,319	162,920	33,161	1,445,867	..	1,191,234	49,523
1896	3,485,893	100,135	39,182	1,297,012	357,228	554,256	28,576
Increase ..	..	62,785	..	148,855	..	636,978	20,947
Decrease ..	228,574	..	6,021	..	357,228	..	..

Census Year.	Manufactures for Years 1900 and 1895—*contd.*			Total Value of Manufactures.	Approximate Value of		
	Shawls and Rugs.	Shirting.	Other Manufactures.		Land.	Buildings.	Machinery and Plant.
	No.	Yds.		£	£	£	£
1901	26,806	..	†	359,382	11,264	93,454	172,704
1896	20,020	15,384	†	302,423	11,050	68,358	144,065
Increase ..	6,786	..	..	56,959	214	25,096	28,639
Decrease ..	..	15,384	..	..	..	..	..

* One mill not in operation.

† "Other manufactures" in 1900 consisted of 234,843 lb. yarn and 53,920 dozen hosiery; and in 1895, of 168,802 lb. and 5,122 spindles of yarn, 21,447 dozen and 28,000 lb. of hosiery, 2,592 knitted garments, and 13,000 mats.

Clothing and Waterproof Factories.

The number of hands increased from 307 males and 1,751 females to 431 males and 2,081 females in five years. Employing, as it now does, about 2,500 persons, this industry ranks high in regard to the absorption of labour, especially that of the female sex, of whom over two thousand are required, as above shown.

The value of all manufacture for the year 1900 was returned at £329,026, against £258,352, in 1895.

The making of waterproof garments is also shown to have developed considerably, whether conducted in combination with clothing factory work of the ordinary kind, or as independent establishments.

CLOTHING FACTORIES.

Census Year.	Number of Factories.	Hands employed.		Wages paid.		Amount of Horse-power.	Total Value of Manufactures, 1900 and 1895.	Approximate Value of		
		M.	F.	M.	F.			Land.	Buildings.	Machinery and Plant.
				£	£	H.-p.	£	£	£	£
1901 ..	21	431	2,081	37,778	63,023	67	329,026	31,200	46,615	11,432
1896 ..	27	307	1,751	26,450	46,789	62	258,352	18,550	29,900	8,254
Increase	..	124	330	11,328	16,234	5	70,674	12,650	16,715	3,178
Decrease	6	..	..	..	..	..	..	..	..	..

In addition to clothing factories, six establishments were in 1901 engaged in the manufacture of waterproof garments only. These in 1900 turned out 15,384 waterproofs, valued at £13,378; besides which 25,196 waterproof garments were made in the clothing factories.

WATERPROOF MAKING

Census Year.	Number of Factories.	Hands employed.		Wages paid.		Amount of Horse-power.	Approximate Value of		
		M.	F.	M.	F.		Land.	Buildings.	Machinery and Plant.
				£	£	H.-p.	£	£	£
1901 ..	6	22	92	1,807	2,822	3	3,020	3,655	1,170
1896 ..	4	15	78	1,344	2,540	2	2,650	1,900	766
Increase	2	7	14	463	282	1	370	1,755	404
Decrease	..	..	..	..	..	..	..	..	..

BOOT AND SHOE FACTORIES.

The total value of all manufactures, as brought out, is £529,254 for 1900. The output from the factories during 1900 was 1,161,873 pairs of boots and shoes, 104,583 pairs of slippers, and 166,027 pairs of uppers.

Excluding gum-boots, during 1900 boots and shoes to the value of £187,629 were imported into the colony, nearly the whole being subject to a duty of 22½ per cent. The United Kingdom supplied to the value of £126,705, and the United States of America £42,658. Besides these were imported boot and shoe vamps and uppers, valued at £8,100. The exports of leather, the produce of the

colony, during the same period, were valued at £112,867, and of boots and shoes made in New Zealand, £534.

Census Year.	Number of Works.	Hands employed.		Wages paid.		Power.				Horse-power.
		M.	F.	M.	F.	Steam.	Water.	s.	Hand and Oil.	
				£	£					H.-p.
1901 ..	126*	1,906	790	165,227	27,216	..	2	26	98	184

Census Year.	Value of Materials used in 1900 and 1895.	Manufactures for the Years 1900 and 1895.			Total Value of Manufactures.	Approximate Value of		
		Boots and Shoes.	Slippers.	Uppers.		Land.	Buildings.	Machinery and Plant.
	£	Pairs.	Pairs.	Pairs.	£		£	£
1901 ..	273,325	1,161,873	104,583	166,027	529,254	57,415	70,189	49,388

*Including a number of small bootmaking concerns which were not dealt with as "factories" at the previous census.

Hosiery Factories.

At the census of 1896 returns were obtained from 7 stocking-weaving factories, employing 1 male and 132 females. The wages paid amounted to £2,541, and the value of the output to £9,357. The census of 1901 shows a very large increase on these figures, as will be seen in the statement given herewith.

Census Year.	Number of Factories.	Hands employed.		Wages paid.		Motive Power.		Horse-power.	Value of Material used.
		M.	F.	M.	F.	Steam.	Gas.		
				£	£			H.-p.	£
1901 ..	17*	17	265	1,323	6,702	2	5	71	18,032

Census Year.	Manufactures for the Year 1900.				Total Value of Manufactures.	Approximate Value of		
	Half-hose.	Hose.	Shirts and Pants.	Other Knitted Goods.		Land.	Buildings.	Machinery and Plant.
	Quantity.	Quantity.	Quantity	Value.				
	Dozen.	Dozen.	Doz n.	£	£	£	£	£
1901 ..	39,601	9,529	1,053	480	31,265	4,605	6,790	8,602

* One factory not in operation in 1900, and one factory in operation six months only.
NOTE.—The above table does not include 53,920 dozen hose, half-hose, under-shirts, pants, and other knitted garments which are given in "Woollen-factories" return.

Rope and Twine Works.

Rope and twine making would appear to have advanced since 1895, to judge from the value of all manufactures given in the returns, which amounted to £87,863 for the year 1900, against £52,400 five years before. Nevertheless, the actual quantity of rope made represented in weight is shown as slightly less than at the earlier census year. As to materials used, phormium comes by far the first, 1,502 tons for 1900 being utilised, against 1,452 tons in 1895. Of manila only 291 tons were used, against 169 in 1895.

Census Year.	Number of Works.	Hands employed.	Wages paid.	Motive Power.				Horse-power.
		M.	M.	Steam.	Water.	Gas.	Horse.	
			£					H.-p.
1901	17	192	13,136	6	4	1	1	494
1896	24	150	6,840	5	6	..	..	280
Increase ..	..	42	6,296	1	..	1	1	214
Decrease ..	7	..	..	..	2	..	..	..

Census Year.	Materials used in 1900 and 1895.						
	Phormium.		Manila.		Other Materials.		Total Value.
	Tons.	£	Tons.	£	Tons.	£	£
1901	1,502	28,663	291	13,140	87	4,575	46,378
1896	1,452	19,251	169	4,664	85	4,335	28,250
Increase ..	50	9,412	122	8,476	2	240	18,128

Census Year.	Manufactures for 1900 and 1895.				Total Value of all Manufactures.	Approximate Value of.		
	Rope	Lines.	Twine.	Other Manufactures.		Land.	Buildings.	Machinery and Plant.
	Tons.	Tons.	Tons.	Tons.	£	£	£	£
1901	274	85	1,727	295	87,863	6,546	9,313	39,450
1896	289	27	1,327	37	52,400	7,247	6,855	26,859
Increase ..	..	58	400	258	35,463	..	2,458	12,591
Decrease ..	15	..	..	..	..	701	..	..

Phormium Mills.

A complete collapse in this industry was shown by the returns of 1896. At that time only 52 mills were left in operation, and the hands employed had fallen in number to 484 men and 163 boys. The returns for 1901 show a revival in the mills to 101 in operation, with 1,519 men and 179 boys. In 1891 there were 177 mills with

2,169 men and 1,029 boys, so that the development obtained 10 years ago has not been recovered in full, though the position has improved greatly since 1896. The wages paid stood at £101,046 for the year 1900; nearly 100,000 tons of raw material were used, and 12,000 tons of fibre dressed, besides 1,000 tons of tow produced. The money value of the total output was £203,492, against £32,546 in 1895, and £234,266 in 1890.

The export of phormium for twelve years has been as under :—

Year.	Exported. Tons.	Value. £
1890	21,158	381,789
1891	15,809	281,514
1892	12,793	214,542
1893	12,587	219,375
1894	4,677	66,256
1895	1,806	21,040
1896	2,968	32,985
1897	2,769	30,674
1898	4,850	74,556
1899	10,371	184,411
1900	15,906*	332,182
1901	10,171	195,728

* This is greater than the quantity returned as dressed in 1900.

The uncertainty that has attended enterprise in the matter of flax-milling still remains, but an Act has been passed forbidding the shipping of phormium for exportation from New Zealand unless it has been previously inspected by a Government official, and graded under regulations which have been made for the purpose. This will have the effect of preventing badly-dressed flax of an inferior quality from being sent away, and thus injuring the reputation of the article generally by depreciation.

The most important particulars given in the returns are tabulated below.

Census Year.	Number of Works.	Hands employed.		Wages paid.	Machine-power used.	
		Men.	Boys.		Steam.	Water.
				£		
1901	101	1,519	179	101,046	75	34
1896	52	484	163	17,544	23	30
Increase ..	49	1,035	16	83,502	52	4

Census Year.	Amount of Horse-power.	No of Machines used.	Raw Material used, 1900 and 1895.		Fibre dressed, 1900 and 1895.	
			Quantity.	Value.	Quantity.	Value.
	H.-p.		Tons.	£	Tons.	£
1901	1,190	105	96,571	53,064	12,035	201,235
1896	553	65	21,770	7,775	2,999	31,771
Increase ..	637	40	74,801	45,289	9,036	169,464

Census Year.	Tow produced.		Total Value of Output, 1900 and 1895.	Approximate Value of		
	Quantity.	Value.		Land.	Buildings.	Machinery and Plant.
	Tons.	£	£	£	£	£
1901	1,062	2,257	203,492	24,644	11,212	28,590
1896	406	775	32,546	12,448	6,531	12,380
Increase ..	656	1,482	170,946	12,196	4,681	16,210

MINES AND QUARRIES.

Gold-quartz Mining and Crushing.

Returns were received for 120 gold-quartz mining and crushing works in 1901. In 1896 there were 168 of these returned, and 135 in 1891. Of 120 quartz-crushing works in 1901, employing 4,333 hands, 78, with 3,370 persons employed, belonged to Auckland Provincial District, being located at the Thames, Waihi, and surrounding country.

The census tables show £796,871 as the total value of the gold obtained by quartz-crushing in the year 1900. Comparison with the two previous censuses shows the output in 1895 (£492,478) to have been higher than that of 1890, but considerably less than than that for 1900, quoted above.

The value of the machinery and plant for quartz-crushing increased from £241,715 in 1890, and £335,474 in 1895, to £735,927 in 1900.

Census Year.	Number of Works.	Hands employed.	Wages paid.	Machine-power used.		Horse-power.
		M.	M.	Steam.	Water.	
			£			H.-p.
1901	120	4,333	382,658	148	74	5,919
1896	168	2,814	226,791	49	70	3,688
Increase ..	..	1,519	155,867	99	4	2,231
Decrease ..	48	..	..	..	..	..

Census Year.	Quartz crushed.	Gold produced 1900 and 1895.	Silver produced 1900 and 1895.	Value of Gold and Silver produced 1900 and 1895.	Approximate Value of Machinery and Plant.
	Tons.	Oz.	Oz.	£	£
1901 ..	356,058	214,789	326,457	796,871	735,927
1896 ..	163,743	149,612	81,302	492,478	335,474
Increase	192,315	65,177	245,155	304,393	400,453

Hydraulic Gold-mining.

Returns for the purposes of the table showing results of hydraulic gold-mining were obtained from public companies and parties of miners operating on a large scale; but, so far as the numbers of persons employed are concerned, nothing like the actual facts are disclosed, and the quantity of gold shown to have been won must fall far short of the true total. The number of men engaged in all kinds of alluvial gold-mining during the year ended 31st March, 1901, was 7,659 Europeans and 1,576 Chinese. Of these nearly 1,000 were employed in dredging. The hands employed shown in the tables for the two classes of alluvial mining number 1,927, so that there must be some 7,300 Europeans and Chinese whose earnings are not included in the tables.

Census Year.	Number of Works.	Hands employed	Machine-power used.		Amount of Horse-power.	Claims working Day and Night, or Day only.
		M.	Water.	Electricity		
					H.-p.	
1901.. ..	130*	962	21	2	342	Day and night, 37 Day only, 87
1896.. ..	105	744	28	2	156	Day and night, 32 Day only, 73
Increase ..	25	218	..	..	186	..
Decrease ..	..	..	7	..	..	..

Census Year.	Expenditure during 1900 and 1895.					Yield of Gold.	Value of Gold.
	Labour.	Water.	Plant and Repairs.	Management.	Total.		
	£	£	£	£	£	Oz.	£
1901	76,008	19,398	26,373	6,652	128,431	35,059	135,944
1896	48,964	17,414	40,183	7,208	113,769	31,161	122,871
Increase ..	27,044	1,984	..	..	14,662	3,898	13,073
Decrease ..	..	..	13,810	556	..	..	..

* Six mines were not in operation during 1900.

Gold-dredging.

During the quinquennial period 1895–1900 this class of industry has become of great importance, not only as a gold-producer, but from the fact that all the works in connection with the building and repairing of dredges is done in the colony. The number of dredges increased from 35 in 1895 to 145 in 1900, and the hands employed from 258 to 965. The yield of gold during 1900 was 71,778 oz., valued at £287,061, against 18,124 oz. and £70,016 in 1895. The expenditure in 1900 was as follows :—

	£
Labour	78,238
Coal, plant, and repairs	188,046
Management	16,308
Total	£282,592

The capital invested in dredging is £690,430, and the value of machinery and plant £528,600. Of the total number, 121 dredges belonged to the Otago Provincial District, 23 to Nelson and Westland, and 1 to Marlborough.

Census Year.	Number of Works.	Hands employed.	Machine-power used.			Amount of Horse-power.
		M.	Steam.	Water.	Unspecified.	
						H.-p.
1901 ..	145*	965	134	2	9	3,041
1896 ..	35	258	30	3	..	963
Increase	130	707	104	..	9	2,078
Decrease	..	..	..	1	..	..

Census Year.	Expenditure during 1900 and 1895.				Yield of Gold.	Value of Gold.	Approximate Value of Machinery and Plant.
	Labour.	Coal, Plant, and Repairs.	Management.	Total.			
	£	£	£	£	Oz.	£	£
1901 ..	78,238	188,046	16,308	282,592	71,778	287,061	528,600
1896 ..	27,124	25,159	4,264	56,547	18,124	70,016	86,003
Increase	51,114	162,887	12,044	226,045	53,654	217,045	442,597

* Including 31 dredges not in operation during 1900, and 10 dredges for which no particulars of operations could be obtained. Three of the dredges were working a few months only.

It must be remembered that a great part of the gold yield in the colony is obtained from alluvial workings, of which no returns are required by the Census Act to be rendered, so that the figures given above must not be regarded as showing any approach to the total production, which amounted to £1,439,602, or, with silver, £1,478,481, for the year 1900.

The returns for quartz-mining and gold-dredging are believed to be fairly correct, but those for hydraulic mining fall far short of the total. No attempt has been made to obtain returns from individual miners or small parties, and these comprise the bulk of the alluvial miners.

Collieries.

The table shows the full output of all the collieries in the colony during 1900. The quantity mined was 1,093,990 tons, against 726,654 in 1895, an increase of 367,336 tons or over 50 per cent. The quantity imported during 1900 was 124,033 tons, and the export amounted to 114,358 tons, 112,707 tons of which were New Zealand produce. The number of persons employed in coal-mining increased from 1,799 in 1895 to 2,460 in 1900, and the value of machinery and plant from £148,367 in 1896 to £372,093 in 1901.

Census Year.	Number of Coal-Mines.	Hands Employed.	Wages Paid.	Motive Power.				Horse-power.	Quality of Coal mined during the Year 1900	
		Males.	Males.	Steam.	Water.	Horse.	Wind.		Brown.	Pitch.
			£					H.-p.	Tons.	Tons.
1901 ..	145	2,460	212,089	32	9	23	2	2,852	339,786	37,804

Census Year.	Quality of Coal mined during the Year 1900 —*contd.*		Total Quantity of Coal won.	Total Cost of Production.	Total Value of Output.	Approximate Value of Machinery and Plant.
	Lignite.	Bituminous and Semi-bituminous.				
	Tons.	Tons.	Tons.	£	£	£
1901 ..	42,538	673,862	1,093,990	365,787	540,778	372,093

NOTE.—Several private mines worked by owners for their own requirements are not included in the above.

SUMMARISED RESULTS.

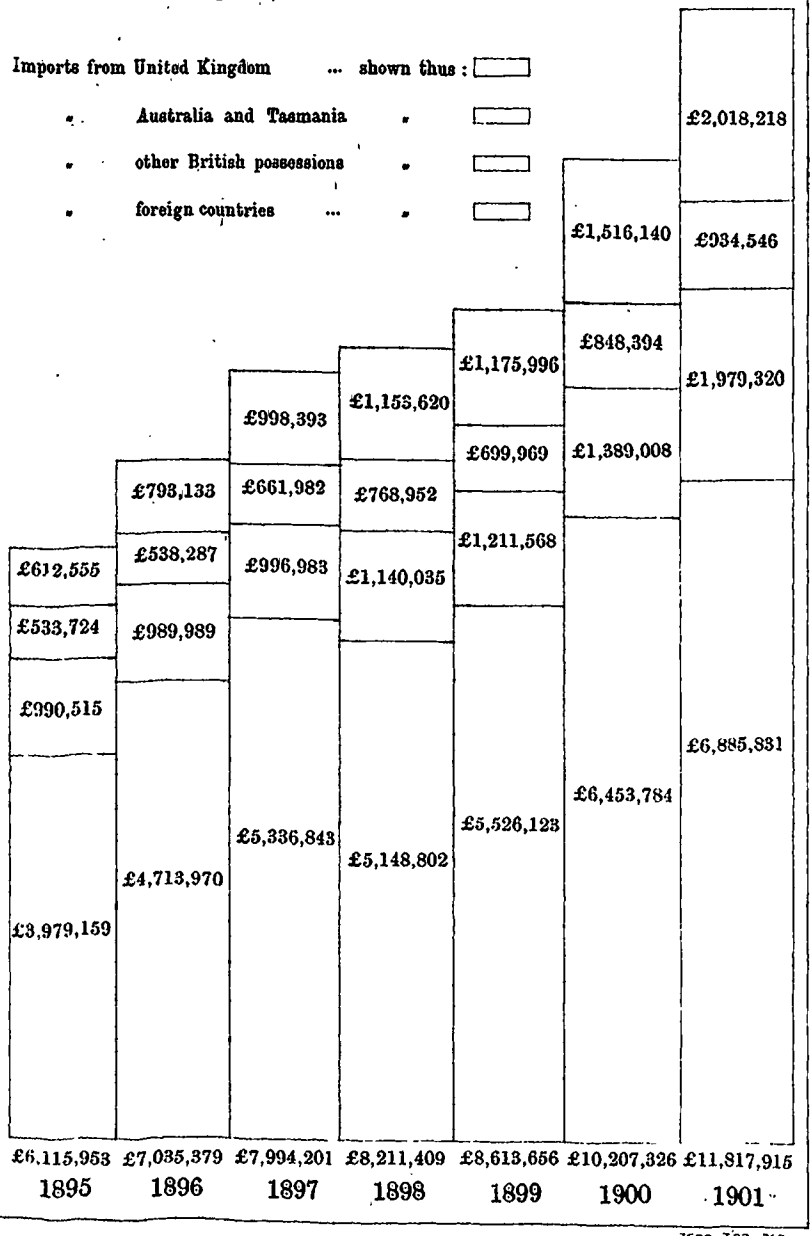
A summary of all the information obtained under the Census Act relating to mines and quarries is appended :—

	Number of Works.			Number of Hands employed.		
	1901.	1896.	1891.	1900.	1895.	1890.
Gold-quartz mining and crushing works	120	168	135	4,333	2,814	1,971
Hydraulic gold-mining ..	130	105	74	962	744	495
Gold-dredging	145	35		965	258	
Collieries §	145	164	95	2,460	1,799	1,655
Stone (building) quarries ..	8	12	9	58	59	35
Stone (road-metal, &c.) quarries						
Totals	548	484	313	8,778	5,674	4,156

	Approximate Value of Output.			Approximate Value of Machinery and Plant		
	1900.	1895.	1890.	1900.	1895.	1890.
	£	£	£	£	£	£
Gold-quartz mining and crushing works	796,871	492,478	278,893	735,927	335,474	241,715
Hydraulic gold-mining	135,944	113,769	73,713	207,750	*	154,270
Gold-dredging ..	287,061	70,016		528,600†	‡86,003	
Collieries§ ..	540,778	370,400	279,777	372,093	148,367	155,671
Stone (building) quarries	2,793	6,041	4,487	4,660	4,070	6,744
Stone (road-metal, &c.) quarries	8,371					
Totals ..	1,771,818	1,052,704	636,870	1,849,030	573,914*	558,400

* Value of machinery and plant used in hydraulic gold-mining not returned; capital invested, £505,674. † Capital invested, information incomplete. ‡ Capital invested, £161,990. § Figures for 1895-96 taken from Mines Report; census returns found incomplete, and results not reliable. Value of output taken at 10s. per ton.

IMPORTS.—Showing rise in the Value of Imports to New Zealand (exclusive of Specie), 1895 to 1901.



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SECTION II.—IMPORTS; CUSTOMS AND EXCISE REVENUE.

Imports.

The quantities and values of imports used in making up the figures given in this portion of the statistical information are obtained from Customs entries, verified where necessary, as with goods subject to an *ad valorem* duty, by examination. For exports, the "free on board in New Zealand" value is given; but, as regards the main items, the Collector of Customs examines carefully the amounts stated, and compares them with current price-lists, to prevent any over-estimate. Goods transhipped at a foreign port are regarded as imported from the country where they were originally shipped, and exports as destined for the country where it is intended to land them. The countries named, however, may not be those of origin or destination, as no attempt is made to trace the goods beyond the ports disclosed by the documents presented to the Customs. Very little cargo *in transitu* passes through New Zealand.

The total declared values of the imports in 1901 amounted to £11,817,915, being an increase on the corresponding total in 1900 of £1,171,819. These figures, however, include specie. The value of coin brought into the colony in 1901 was £464,499, against £438,770 in the previous year, and if these amounts are excluded, the increase on the values of all other articles will be found to reach the sum of £1,146,090.

The value of imports for each of the past fourteen years was:—

Year.	Imports, inclusive of Specie. £	Imports, exclusive of Specie. £
1888	5,941,900	5,430,050
1889	6,308,863	5,980,583
1890	6,260,505	5,928,625
1891	6,503,849	6,431,101
1892	6,943,056	6,742,544
1893	6,911,515	6,494,279
1894	6,788,020	5,990,177
1895	6,400,129	6,115,953
1896	7,137,320	7,035,379
1897	8,055,223	7,994,201
1898	8,230,600	8,211,409
1899	8,739,633	8,613,656
1900	10,646,096	10,207,326
1901	11,817,915	11,353,416

The expansion movement observed as proceeding since 1894 to 1900 is found to have been continued during the year 1901, and at a high rate of increase; but the figures include about half a million of money for railway plant imported by Government.

It will be seen that the value of imports, exclusive of specie, rose from £5,430,050 in 1888 to £6,742,544 in 1892, then fell to

£5,990,177 in 1894, after which there ensued a steady advance year by year to £11,353,416 in 1901. The movement for the period 1894–1901 is a rise at the rate of 90 per cent. in money value, or a sum of £5,363,239; for the ten years, 1892–1901, the increase is £4,610,872, or 68 per cent. In quantities of various imports the increases vary, and full particulars of every kind of article imported in 1901 are to be found in detail further on, which may be critically examined with those in similar tables given in the previous Year-books.

The degree of expenditure of loan moneys by the general and local Government may somewhat affect the question when considering the rise of imports. And, when consulting the figures relating to expenditure out of loan accounts, the matter of aids from the Consolidated Fund (which are included) presents itself, besides other features in connection with this subject.

The expansion of imports is still further to be considered in connection with the condition of the manufactures of the colony, for an increase of imports arising from a decline of internal manufactures would scarcely be regarded as a satisfactory position. But Section I., preceding this, exhibits a most substantial general development of the manufactures of New Zealand since 1895, not only in the great primary industries, but throughout.

It is desirable to consider not only the total value of the import trade for different years by comparing figures, but to ascertain the rates *per capita* of population, to judge whether the imports are relatively greater or less than they have been. The fairest comparisons are from calculations made after deducting specie imported, for in the year 1894, as an instance, no less than £797,843 was brought to the colony in coin.

The figures for each year from 1888 stand thus:—

Years.	Imports per head of mean Population, excluding Maoris.	
	Including Specie.	Excluding Specie.
	£ s. d.	£ s. d.
1888	9 16 4	8 19 5
1889	10 5 6	9 15 6
1890	10 0 2	9 11 0
1891	10 6 6	10 4 3
1892	10 16 3	10 9 11
1893	10 9 0	9 16 5
1894	9 19 11	8 16 5
1895	9 4 10	8 16 8
1896	10 1 11	9 19 1
1897	11 3 3	11 1 7
1898	11 3 7	11 3 1
1899	11 13 1	11 9 8
1900	13 18 10	13 7 4
1901	15 3 10	14 11 11

Using the figures exclusive of the specie, it will be seen that, though comparisons for years since 1888 do not show by any means a steady rise since that year, the position is that whereas the

imports proper were only £8 19s. 5d. per head of population in the first period of the table, they had increased by £5 12s. 6d. per head in 1901, and increase is observed in each year's figures since 1894, amounting to £5 15s. 6d. for the last eight years.

By means of the accompanying table, in which the articles imported are arranged in groups according to their nature, the increases in value can be traced to their specific heads :—

IMPORTS FOR FIVE YEARS.

Group of Principal Articles imported.	1897.	1898.	1899.	1900.	1901.
	£	£	£	£	£
Apparel and slops ..	362,389	354,940	393,689	451,879	463,194
Boots and shoes ..	132,203	130,912	151,593	194,811	211,215
Cotton piece-goods ..	414,673	417,733	447,495	514,607	470,568
Drapery	344,539	343,820	395,696	438,299	443,863
Haberdashery ..	70,853	85,985	84,808	95,401	110,746
Hats and caps ..	63,310	66,416	68,184	66,799	70,013
Hosiery	83,796	75,736	90,545	103,291	101,481
Linen manufactures ..	57,039	56,572	69,167	83,206	89,915
Millinery	32,245	36,074	36,932	43,313	43,380
Silks	74,400	79,910	87,639	97,922	121,937
Woollens	293,449	286,911	297,387	330,713	348,666
Totals.. ..	1,928,896	1,935,009	2,123,135	2,420,241	2,474,978
Agricultural implements	11,095	17,234	17,063	13,508	10,744
Cutlery	19,636	22,722	19,764	23,089	27,149
Hardware and iron-mongery	228,465	248,665	255,701	330,314	315,239
Rails and railway bolts, &c.	90,489	42,773	63,557	118,464	148,344
Iron and steel, other, pig, wrought, wire, &c.	529,204	554,124	632,182	865,361	682,906
Machinery	368,416	422,011	405,551	536,429	600,019
Nails	33,279	36,792	31,363	48,050	40,034
Railway plant ..	46,082	57,224	63,807	63,128	514,511
Sewing-machines ..	21,542	30,618	30,801	37,429	38,227
Tools, artificers' ..	57,903	70,631	59,066	77,447	84,523
Totals ..	1,406,111	1,502,794	1,578,855	2,113,219	2,461,696
Sugar	373,407	425,270	354,925	451,522	489,936
Tea	178,350	183,717	183,691	199,934	219,089
Totals.. ..	551,757	608,987	538,616	651,456	709,025
Beer.	39,614	37,844	39,166	34,296	34,949
Spirits*	178,344	187,020	215,685	198,282	243,824
Tobacco	164,889	161,836	184,173	198,861	221,889
Wine	50,202	48,514	51,640	55,098	63,837
Totals.. ..	433,049	435,214	490,664	486,537	564,499

* Includes methylated and perfumed spirits, and spirits of wine.

IMPORTS FOR FIVE YEARS—*continued.*

Group of Principal Articles imported.	1897.	1898.	1899.	1900.	1901.
	£	£	£	£	£
Paper	127,980	133,901	135,482	174,111	184,986
Printed books ..	116,485	109,961	132,260	136,891	140,347
Stationery	92,871	98,469	100,875	96,408	113,422
Totals.. ..	337,336	342,331	368,617	407,410	438,755
Bags and sacks ..	104,401	111,116	123,596	141,810	214,987
Coals	98,139	105,223	92,815	120,406	151,334
Fancy goods	100,824	103,786	110,114	128,339	145,356
Fruits (including fresh, preserved, bottled, dried)	183,133	181,447	180,590	226,128	248,985
Oils	163,793	162,523	126,967	206,770	238,396
Other imports (excluding specie)	2,686,762	2,722,979	2,879,687	3,305,010	3,705,405
Total Imports (excluding specie)	7,994,201	8,211,409	8,613,656	10,207,326	11,353,416
Specie imported ..	61,022	19,191	125,977	438,770	464,499
Total Imports ..	8,055,223	8,230,600	8,739,633	10,646,096	11,817,915

Of £11,353,416 the total value of goods imported during 1901, the chief items were as under:—

Articles.	Value. £	Proportion per Cent.
Clothing, drapery, &c.	2,474,978	21·80
Metal, machinery, and implements..	2,461,696	21·68
Tea and sugar	709,025	6·25
Wine, beer, spirits, and tobacco ..	564,499	4·97
Paper, books, and stationery ..	438,755	3 86
Other imports	4,704,463	41·44
	11,353,416	100·00

The declared value of the clothing, drapery, &c., imported increased from £2,420,241 in 1900 to £2,474,978 in 1901. In 1897 the value of the import was £1,928,896. The iron, machinery, and implements imported in 1901 were valued at £2,461,696, an increase of £1,055,585 on the corresponding figures for 1897 (£1,406,111). The value of sugar and tea imported in 1901 shows an increase, when compared with 1900, of £57,569. Beer, wine, spirits, and tobacco show an increase of £77,962, from £486,537 in 1900 to £564,499 in 1901.

To the total value of "Other imports (excluding specie)," in 1901 (£3,705,405), shown in the table above, arms, ammunition, and explosives contributed a sum of £201,683; bicycles, tricycles, and fittings, £125,230; drugs, chemicals, and druggists' wares, £212,430; patent medicines, £33,661; manures, £134,186; musical instruments, £116,396; glass and glassware, £133,434; earthenware,

£69,422; floorcloth and oilcloth, £79,479; furniture and upholstery, £63,096; cement, £48,569; leather and leather manufactures, £75,783; seeds, £60,669; and timber, £179,152.

Goods imported by means of the "Parcels Post" system during 1901 were valued at £109,683.

Value of Free and Dutiable Imports.

The values of the imports into New Zealand during the years 1900 and 1901 are given in the next table, classified according to the duties to which they were liable, and arranged so as to show the declared value of goods on which specific or *ad valorem* duties at various rates are payable, and of those admitted free of duty:—

Duties to which Imports liable.	Value of Imports, 1900.		Value of Imports, 1901.	
	£	£	£	£
Specific duties	..	2,397,728	..	2,404,581
Ad valorem duties—				
5 per cent.	339,750		252,513	
10 per cent.	169,191		170,433	
15 per cent.	42,852		156,777	
20 per cent.	2,282,246		2,359,311	
22½ per cent.	196,325		208,205	
25 per cent.	834,926		994,472	
40 per cent.	1,488		1,085	
Various	127,232*		8,875	
Parcels-post (various) ..	87,662		109,683	
		4,081,672		4,261,354
Duty-free (excluding specie)	..	3,727,926	..	4,687,481
Specie imported.. ..	..	438,770	..	464,499
Totals	..	£10,646,096	..	£11,817,915

The proportions of free and dutiable goods imported during 1898, 1899, 1900, and 1901 are compared with similar figures for 1894, the year preceding that in which the altered tariff came into force:—

——	1894.	1898.	1899.	1900.	1901.
Merchandise—	£	£	£	£	£
Free..	1,871,772	2,800,046	2,942,999	3,727,926	4,687,481
Dutiable	4,118,405	5,411,363	5,670,657	6,479,400	6,665,935
Imports (less specie)	5,990,177	8,211,409	8,613,656	10,207,326	11,353,416
	£	£	£	£	£
Total net duty received	1,572,467	1,965,404	2,046,452	2,174,498	2,196,767
Duty, per cent. of imports—	Per Cent.	Per Cent.	Per Cent.	Per cent.	Per Cent.
(*a.*) On dutiable imports	38·18	36·32	36·09	33·56	32·96
(*b.*) On all merchandise	26·25	23·94	23·76	21·30	19 35

* The amount for 1900, under the heading "Various," includes the value of imports liable to an *ad valorem* duty, but on which a lower duty was levied under the altered tariff of 1900 for part of the year.

Sugar.

The value of sugar (including glucose, molasses, and treacle) imported in 1901 was £489,936, an increase of £38,414 on the amount for 1900 (£451,522). The value of this import for the last three years has averaged only £432,128 per annum; but for the three years, 1882, 1883, and 1884, the average, with a much smaller population, was £615,207 for each year. The smaller average amount for the last three years is due, not so much to a reduction in the quantity imported as to the fall in the price of sugar, and partly to the fact that the proportion of refined to raw sugar has vastly decreased.

The following figures, giving the consumption per head of sugar in Australasia, are, saving those for New Zealand—and excluding a proportion (30 lb. per head) deducted on account of Maoris—taken from Mr. Coghlan's "Seven Colonies of Australasia, 1899–1900." The figures stating the consumption of tea, given further on, are also taken from the same source:—

Annual Consumption of Sugar per Head in Australasia.

	Lb.		Lb.
Queensland	129·9	Victoria	92·3
Western Australia	114·3	New Zealand	88·9
New South Wales	103·0	Tasmania	84·9
South Australia	98·8		

Tea.

The quantity of tea entered for consumption in 1901 was 5,508,610 lb. Supposing Maoris to use, on an average, 1 lb. per head per annum, the consumption of tea per head of the population, exclusive of Maoris, would be 7 lb. in 1901.

Annual Consumption of Tea per Head in Australasia.

	Lb.		Lb.
Western Australia	10·0	Victoria	7·2
New South Wales	7·8	New Zealand	7·0
South Australia	7·7	Tasmania	6·1
Queensland	7·7		

Beer, Spirits, and Wine.

During 1901 excise duty was paid on 7,134,800 gallons of beer; and 188,490 gallons of beer, 596,071 gallons of spirits, and 123,592 gallons of wine were entered at the Customs for home consumption.

The actual quantity of beer made and used in the colony has increased from 4,243,760 gallons in 1886 to 7,134,800 gallons in 1901:—

Beer manufactured in New Zealand on which Excise Duty was paid.

	Gal.		Gal.
1886	4,243,760	1894	4,807,360
1887	4,264,160	1895	4,936,400
1888	4,050,560	1896	5,382,960
1889	4,402,480	1897	5,741,200
1890	4,676,240	1898	6,013,120
1891	4,567,920	1899	6,261,200
1892	4,752,720	1900	6,811,280
1893	4,873,600	1901	7,134,800

The following table gives the consumption per head of alcoholic liquors by the people, excluding and including Maoris, showing separately the proportions of beer, wine, and spirits from 1883 to 1901. To the amount of beer manufactured in the colony in each year on which excise duty was paid has been added the amount brought into consumption from imports:—

Year.	Beer.		Spirits.		Wine.	
	Excluding Maoris.	Including Maoris.	Excluding Maoris.	Including Maoris.	Excluding Maoris.	Including Maoris.
	Gal.	Gal.	Gal.	Gal.	Gal.	Gal.
1883	9·435	8·709	1·088	1·005	0·315	0·291
1886	7·861	7·333	0·820	0·765	0·212	0·198
1889	7·624	7·136	0·598	0·560	0·176	0·165
1892	7·807	7·328	0·708	0·664	0·174	0·163
1895	7·421	6·996	0·629	0·593	0·135	0·127
1898	8·427	7·995	0·668	0·634	0·146	0·139
1899	8·583	8·150	0·687	0·653	0·148	0·141
1900	9·150	8·696	0·720	0·684	0·152	0·145
1901	9·413	8·919	0·766	0·726	0·159	0·151

A comparison of the annual consumption of beer, spirits, and wine per head in Australasia is added:—*

—	Beer.	Spirits.	Wine.	—	Beer.	Spirits.	Wine.
	Gal.	Gal.	Gal.		Gal.	Gal.	Gal.
Queensland ..	12·36	0·91	0·60	Western Australia	21 50	2·21	1·38
New South Wales	9 14	0·73	0·61	Tasmania ..	7·19	0·38	0·09
Victoria ..	11·43	0·73	1·35	New Zealand (including Maoris)	7·99	0·63	0·13
South Australia ..	9·13	0·40	1·98				

* See "The Seven Colonies of Australasia, 1897-98.

Tobacco.

The tobacco entered for consumption in 1901 was 1,970,889 lb., and the consumption per head of population, including Maoris, 2·40 lb.

Average Annual Consumption per Head of Tobacco in various Countries.

	Lb.		Lb.
Holland	6·92	New Zealand	2·40
Western Australia	5·08	Canada	2·11
United States	4·40	Victoria	2·06
Turkey	4·37	France	2·05
Austria-Hungary	3·77	Sweden	1·87
Denmark	3·70	South Australia	1·83
Switzerland	3·24	Tasmania	1·80
Belgium	3·15	Spain	1·70
Germany	3·00	United Kingdom	1·41
Queensland	2·86	Italy	1·34
New South Wales	2·53	Russia	1·23

Imports from Different Countries.

The imports from the United Kingdom to New Zealand in 1901 were valued at £6,885,831, or an increase of £381,347 on the value of goods imported from the Home country during the previous year. From British colonies and possessions the imports were £2,913,866, an increase of £288,494 on the amount in 1900.

The following are the values of imports from different countries or places in 1901 and 1900, given in the order of the increase or decrease from each:—

Country, Colony, State, &c.	1901. £	1900. £	Increase. £
United Kingdom	6,885,831	6,504,484	381,347
United States (East Coast)	1,174,745	958,286	216,459
New South Wales	1,222,026	1,052,792	169,234
United States (West Coast)	240,515	103,587	136,928
Victoria	641,431	552,013	89,418
Java	83,416	..	83,416
Bengal	331,188	255,911	75,277
Malden Island	29,398	12,665	16,733
Germany	198,521	182,074	16,447
China	15,324	1,495	13,829
Belgium	63,083	49,295	13,788
Ceylon	134,742	123,333	11,409
South Australia	39,319	29,116	10,203
Pacific Islands	68,733	61,025	7,708
Greece	19,758	15,653	4,105
Tasmania	44,840	41,196	3,644
Philippine Islands	15,739	12,474	3,265
Italy	9,211	6,975	2,236
Japan	45,465	43,404	2,061
Western Australia	4,846	2,811	2,035
Sweden	11,809	10,101	1,708
Switzerland	2,650	1,179	1,471
France	27,714	26,326	1,388
Canada	33,538	32,169	1,369
Austria	2,316	1,062	1,254
Madras	1,084	523	561
Spain	1,650	1,129	521
Mauritius	442	165	277
Holland	17,314	17,130	184
Bombay	475	345	130
West Indies	1,517	1,405	112
Canary Islands	149	76	73
Denmark	309	247	62
Lord Howe Island	47	..	47
Natal	56	15	41
Aden	7	..	7
Argentine Republic	7	..	7

Country, Colony, State, &c.	1901. £	1900. £	Decrease £
Queensland	26,858	99,050	72,192
Fiji	349,706	364,510	14,804
Asia Minor	16,910	20,725	3,815
Hongkong	18,245	20,953	2,708
Singapore	25,538	26,292	754
Burmah	1,072	1,773	701
Turkey	..	534	534
British Columbia	8,640	8,996	356

Country, Colony, State, &c.	1901. £	1900. £	Decrease. £
Portugal	552	773	221
Egypt	657	840	183
Macao	..	160	160
Cape Colony	330	487	157
Norway	154	285	131
Norfolk Island	38	140	102
Ellice Island	..	75	75
Malta	..	23	23
West Indies (British)	..	19	19

The following table gives the value of the imports for each port in New Zealand for the last two years, arranged in order of magnitude for 1901 :—

	1901. £	1900. £
Wellington	3,046,707	2,767,066
Auckland	3,023,566	2,617,329
Dunedin	2,203,824	2,158,177
Lyttelton	2,072,186	1,770,709
Invercargill and Bluff ..	328,727	288,170
Napier	218,140	209,418
Timaru	176,967	143,090
Wanganui	153,679	145,267
Nelson	135,779	140,514
Greymouth	74,842	59,460
New Plymouth	73,631	67,338
Oamaru	55,393	47,559
Poverty Bay	49,745	49,278
Westport	32,254	37,750
Hokitika	22,023	12,693
Patea	16,038	15,561
Wairau	14,376	15,942
Kaipara	7,114	7,883
Tauranga	1,875	3,639
Picton	1,366	1,591

Imports, by Provincial Districts.

The values of imports in each provincial district during 1891 and 1901 were as under:—

	1891. £	1901. £
Auckland	1,621,352	3,082,300
Taranaki	26,776	89,669
Hawke's Bay	194,653	218,140
Wellington	1,397,452	3,200,386
Marlborough	20,338	15,742
Nelson	157,606	168,033
Westland	58,736	96,865
Canterbury	1,247,683	2,249,153
Otago	1,758,406	2,587,944

The value of imports by parcel-post (£20,847 in 1891 and £109,683 in 1901) must be added to the above figures in order to make up the totals (including specie) of £6,503,849 and £11,817,915 for the respective years.

Imports, North and Middle Islands.

Separating the value of the imports for the North Island from that of the Middle Island, it is found that whereas in 1891 the

former received imported goods to the value of £3,240,233, against £3,242,769 for the Middle Island, in the year 1901 the North Island imports exceeded those of the other, the values being respectively £6,590,495 and £5,117,737, or an excess for the North Island of £1,472,758, or 28·78 per cent.

Details of all Articles of Import.

Details of all imports for 1901, giving quantities and values of articles introduced into the colony, with the amounts entered for Home consumption, and the amount of duty received, are next shown:—

General Imports into the Colony of New Zealand during the Year 1901.
(For rates of Duty, see Tariff, pp. 83 to 99.)

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Acid—				
Acetic	236,557 lb.	2,914	340,864 lb.	2,130 8 0
Carbolic	33,549 "	652	..	..
Salicylic	3,210 "	322	..	..
Sulphuric	145,044 "	1,259	..	..
Tartaric	91,176 "	4,842	90,025 lb.	375 2 1
Unenumerated	84,371 "	1,575	..	..
Alkali—				
Potash and caustic potash	1,444 cwt.	2,121	..	..
Soda ash	13,201 "	4,331	..	..
Soda, carbonate and bi-carbonate	9,733 "	3,451	5,847 cwt.	492 7 5
Soda, caustic	12,236 "	9,073	..	..
Soda crystals	148 "	42	149 "	14 17 10
Soda silicate	2,152 "	787	..	..
Unenumerated	3,036 "	1,589	..	..
Alum	1,055 "	442	..	..
Animals, Living—				
Birds	1,731 No.	228	..	..
Cattle	30 "	2,132	17 No.	*8 10 0
Deer	9 "	50	..	..
Dogs	62 "	327	..	..
Goats	5 "	22	..	..
Horses	289 "	17,017	275 No.	275 0 0
Kangaroos	2 "	5	..	..
Pigs	1 "	35	..	..
Poultry	311 "	714	..	..
Sheep	249 "	3,178	..	..
Turtles	10 "	42	..	..
Apparel and slops n.o.e.	..	462,109	£459,547	114,886 13 4
Apparel made to the order of residents in the colony	..	1,085	£1,078	431 6 5
Arms, ammunition, and explosives—				
Accoutrements	..	4,429	..	..
Caps, percussion	6,084,000 No.	896	..	..
Cartridges, 10- to 24-bore	4,807,460 "	16,293	1,779,200 No.	3,584 8 3
Cartridges n.o.e.	10,875,785 "	13,959	£6,382	1,276 9 0
Cartridge-cases	244,200 "	407	241,700 No.	90 13 8

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Arms, ammunition, and explosives—*continued.*		£		£ d. s.
Detonators for dynamite	928,275 No.	1,592	..	..
Dynamite	150,000 lb.	7,128	..	..
Firearms	31,999 No.	94,972	£15,674	3,134 16 2
Fuse	206,665 coils	5,153	..	..
Lithofracteur and cordite	223,880 lb.	11,867	..	..
Ordnance stores ..	..	14,684	..	..
Powder, blasting	516,375 lb.	12,590	..	..
„ sporting ..	14,745 „	2,116	13,687 lb.	342 3 6
Shot	580 cwt.	706	201 cwt.	100 8 11
Swords	14,482 No.	10,134	..	..
Other explosives and unenumerated	60,620 lb.	4,757	..	..
Asphalt..	1,695 cwt.	565	..	..
Bacon and hams ..	6,001 lb.	200	490 lb.	4 1 8
Bags and sacks—				
Cornsacks	918,757 doz.	206,447	..	..
Unenumerated ..	54,917 „	8,540	£416	83 3 0
Bagging and sacking ..	..	2,300	£25	3 15 0
Basketware and wickerware	..	2,579	£2,579	515 17 10
Beche-de-mer	2 cwt.	4	£4	0 16 0
Beer	186,910 galls.	34,949	188,491 galls.	18,849 3 0
Belting, leather	39,913 lb.	4,818	38,870 lb.	647 16 10
„ other than leather	..	17,785	..	..
Beverages, non-alcoholic—				
Aerated and mineral waters	7,242 doz.	1,649	£1,591	318 6 0
Coffee essence ..	..	7,883	£8,048	1,609 10 9
Limejuice, sweetened ..	4,075 galls.	876	£907	226 14 6
„ unsweetened	35,329 „	3,267	..	..
Unenumerated ..	..	411	£481	120 5 7
Bicycles and tricycles ..	8,014 No.	54,057	£52,684	10,536 15 6
Materials for ..	..	71,173	£32,401	6,480 2 4
Biscuits—				
Fancy, and other kinds..	85,590 lb.	4,066	84,757 lb.	706 6 2
Ships', plain	17 cwt.	21	17 cwt.	2 11 7
Blacking	..	4,467	£4,341	868 3 2
Blacklead	..	3,135	£3,280	656 0 0
Blue	218,982 lb.	6,155	200,851 lb.	1,673 15 2
Boats	17 No.	4,165	..	..
Bones	29 tons	150	..	..
Books, printed	..	140,347	..	..
Boots and shoes	93,577 doz. pr.	200,909	£194,468	43,755 5 1
Gum-boots	1,030 „	10,306	..	..
Borax	2,049 cwt.	2,414	..	..
Brass—				
Pigs, bars, tubes, or sheets	537 „	2,288	..	..
Forging or stamped work in the rough ..	241 „	914	..	..
Manufactures	..	7,832	£7,711	1,542 5 9
Bricks—				
Building	5,000 No.	11	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Bricks—*continued.*				
Fire	128,208 No.	1,019	£808	161 10 9
Other kinds	16,359 „	91	..	..
Brushware and brooms	3,180 doz.	1,834	£1,851	452 16 0
Brushes (clothes, hair, hat, and toilet)	..	5,163	£5,008	1,001 12 0
Unenumerated	..	6,235	£6,082	1,520 10 4
Materials for	..	7,801	..	..
Buckets and tubs—				
Iron	919 doz.	557	£551	137 17 0
Wood	35 „	19	£19	3 16 0
Building materials, unenumerated	..	796	..	..
Butter	18 cwt.	95	..	..
Candles	2,258,177 lb.	41,947	2,174,331 lb.	9,059 14 3
Canes and rattans	..	1,560	..	..
Canvas	..	40,458	..	..
Caramel, brewers'	22,324 lb.	333	21,824 lb.	272 16 0
„ cereal	132 „	3	132 „	0 11 0
Cards, playing	41,366 packs	868	42,438 packs	1,060 19 0
Carpeting and druggeting	..	39,692	£38,567	7,717 9 6
Carriages, &c.—				
Carriages	246 No.	5,545	£5,377	1,075 10 0
Carts, drays, and wagons	112 „	1,469	£1,467	293 8 0
Perambulators and go-carts	63 „	88	£88	17 12 0
Materials for	..	7,657	£7,685	1,537 0 0
Materials for axles, arms, and boxes	..	16,383	..	..
Carriage and cart shafts, spokes, and felloes in the rough	..	7,236	..	..
Carriage and cart-makers' materials	..	16,245	..	..
Casks, empty	1,815 No.	2,005	£2,005	400 18 0
Cement	101,554 barrels	48,569	93,914 barrels	9,391 8 0
Chains and chain cables	7,432 cwt.	8,634	..	..
Charcoal	3,449 „	1,689	..	..
Cheese	37 „	121	£98	19 12 0
Chicory	72 lb.	5	72 lb.	0 18 0
China, porcelain, and parian-ware	..	23,155	£23,026	4,605 6 5
Clocks	46,549 No.	15,145	£15,159	3,031 15 7
Coal	149,764 tons	151,334	..	..
Cocoa and chocolate	388,997 lb.	39,646	366,850 lb.	4,585 12 7
Cocoa beans	133,540 „	5,087	..	..
Coffee—				
Raw	325,020 „	11,208	..	..
Roasted	4,915 „	257	4,805 lb.	60 1 3
Coke	1,014 tons	3,002	..	..
Combs	..	1,367	£1,364	272 14 8

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Confectionery—				
Chocolate in plain trade packages	152,803 lb.	7,588	150,529 lb.	1,881 12 3
Chocolate, fancy packages	..	6,875	£6,768	1,353 12 10
Unenumerated ..	424,162 „	13,581	427,689 lb.	3,564 1 6
Copper—				
Nails	360 cwt.	1,688	..	..
Pig, bar, sheet, and tube	4,851 „	22,609	..	..
Rod and bolt	236 „	880	..	..
Sheathing	768 „	2,802	..	..
Manufactures	..	51	..	..
Copra	599 tons	6,419	..	..
Cordage	5,446 cwt.	14,726	£13,601	2,720 5 10
Hawsers of 12 in. and over	140 „	233	..	..
Iron and steel	11,705 „	25,822	..	..
Cork, cut	..	8,793	£9,068	1,813 12 8
Cotton piece-goods—				
Butter- and cheese-cloth	..	4,265	..	..
Calico, white and grey ..	..	142,228	..	..
Corduroy, moleskin, and beaver-skin	..	3,656	..	..
Leather-cloth	..	7,105	..	..
Shirtings, coloured cotton	..	33,270	..	..
„ flannelette ..	..	6,738	..	..
„ union, of 6d. per yard and under ..	..	2,926	..	..
Tubular woven cotton cloth	..	4,624	..	..
Waterproof material ..	..	36,813	..	..
Unenumerated ..	..	228,943	£221,235	34,425 10 2
Cotton—				
Raw	3,812 lb.	67	..	..
Waste	3,883 cwt.	5,571	..	..
Wick	112,295 lb.	4,980	..	..
Cutlery	..	27,149	£26,745	5,349 0 5
Doors, plain	496 No.	265	496 No.	49 12 0
Drapery	..	281,115	£278,998	55,799 10 7
Lace and laces ..	..	46,782	£46,246	11,561 8 5
Ribbons and crape ..	..	19,761	£19,757	4,939 7 1
Tailors' trimmings ..	..	96,205	..	..
Drugs—				
Baking powder and yeast preparations ..	..	287	£302	60 10 0
Refined glycerine ..	..	1,143	£1,116	223 4 0
Chemicals n.o.e. ..	..	3,909	£3,865	579 15 6
Cream of tartar ..	772,589 lb.	28,987	811,066 lb.	3,379 8 10
Drugs, druggists' sundries, and apothecaries' wares	..	71,763	£71,287	10,693 2 6
Tinctures and medicinal spirits	13,296 lb.	1,019	16,476 lb.	823 16 1
Anhydrous ammonia ..	..	3,353	..	..
Arsenic	940 cwt.	1,010	..	..
Disinfectants	..	4,341	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Drugs—*continued*—		£		£ s. d.
Food preservative	..	3,065	..	..
Gums	..	2,052	..	..
Insecticides and tree-washes	..	1,226	..	..
Maltine	..	693	..	
Medicinal barks, leaves, &c.	..	1,261	..	..
Phosphorus	..	1,106	..	..
Potassium cyanide	7,938 cwt.	44,687	..	..
Sheep-dip	..	24,980	..	..
Sheep- and horse-drenches	..	73	..	..
Unenumerated	..	17,475	..	..
Dyes	..	16,243	..	..
Earthenware	..	69,422	£68,384	13,676 14 8
Eggs	13 doz.	14	..	..
Engine-packing	2,713 cwt.	9,554	..	..
Essences, flavouring—				
Spirituous	1,656 gals.	4,391	1,648 gals.	1,318 2 8
Unenumerated	..	80	£81	12 4 1
Essential oils—				
Eucalyptus	10,553 lb.	2,306	£2,339	467 16 8
Other kinds	45,670 „	5,936	..	..
Fancy goods and toys	..	145,356	£141,256	28,251 2 2
Felt sheathing	..	5,814	..	..
Fire-engines	7 No.	4,449	..	..
Fire-hose and other appliances	..	3,928	..	..
Fireworks	..	1,321	£1,181	236 4 0
Fish—				
Anchovies, salted	35 cwt.	61	..	..
Dried, pickled, and salted	2,397 „	4,433	2,195 cwt.	1,097 11 7
Potted and preserved	2,111,040 lb.	48,895	1,900,111 lb.	15,834 5 3
Goldfish, live	..	5	..	..
Fishing tackle—				
Artificial flies	..	301	£293	73 5 0
Fish-hooks	..	464	..	..
Unenumerated	..	2,670	£2,587	517 6 10
Flock	125 cwt.	157	£131	13 2 0
Floorcloth and oilcloth	..	79,479	£77,368	15,473 10 3
Flour	615 centals	245	615 centals	30 14 5
Foods, animal—				
Chaff	6 tons	22	6 tons	5 11 0
Unenumerated	..	2,669	£2,667	533 9 8
Foods, farinaceous—				
Arrowroot	83,347 lb.	750	..	..
Macaroni and vermicelli	107,974 „	1,415	..	..
Maizena and corn-flour	1,006,801 „	12,244	1,024,600 lb.	1,067 5 10
Sago and tapioca	17,575 cwt.	11,393	..	..
Unenumerated	..	2,447	..	..
Fruits, bottled and preserved	50,204 doz.	14,065	£13,750	3,437 9 7
Fruits, dried—				
Currants	2,913,943 lb.	40,234	2,839,178 lb.	11,829 18 2

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Fruits, dried—*continued.*		£		£ s. d.
Raisins	2,269,361 lb.	37,540	2,278,694 lb.	9,494 11 2
Unenumerated ..	1,358,606 „	19,026	1,295,671 „	10,797 5 2
Fruits, fresh—				
Apples, pears, plums, &c.	1,010,960 „	13,123	1,010,960 „	4,212 6 8
Apples and pears ..	974,010 „	9,874	974,250 „	2,029 13 9
Currants and raspberries,	23,274 „	224	23,274 „	48 9 9
Lemons	737,584 „	6,892	737,584 „	1,536 12 8
Other kinds	22,272,323 „	105,182	..	..
Lemon- and orange-peel, in brine	418,442 „	2,447	..	..
Preserved in sulphurous acid	30,744 „	320	30,744 lb.	128 2 0
Pulp and partially-preserved fruit	5,493 „	58	5,493 „	34 6 7
Fungus	11 cwt.	21	..	..
Furniture and upholstery ..	..	40,055	£39,209	9,802 5 5
Kapok	5,409 cwt.	18,259	..	..
Unenumerated ..	..	4,782	..	..
Furniture-, knife-, and plate-powder and polish	..	5,397	£5,353	1,070 11 6
Furs	..	4,827	£4,806	1,201 9 2
Gelatine and isinglass ..	57,410 lb.	4,516	£4,643	928 10 6
Glass—				
Bottles, empty ..	..	42,044	..	..
Mirrors and looking-glasses	..	6,223	£6,185	1,546 5 6
Plate, bevelled, &c. ..	..	5,049	£5,013	1,253 5 0
„ other kinds ..	412,738 sup. ft.	13,049	£13,010	2,601 18 6
Window	2,732,610 „	26,793	2,742,150 sup. ft.	2,742 2 10
Glassware	..	40,276	£33,911	6,782 2 10
Glue and size	117,803 lb.	3,059	109,769 lb.	686 1 1
Gold-leaf	..	1,118	..	..
Grain and pulse—				
Barley	35 centals	37	31 centals	3 1 6
Beans and peas ..	801 „	539	802 „	30 1 7
Oats	127 „	27	123 „	4 11 11
Wheat	997 „	199	992 „	37 3 10
Unenumerated ..	3,467 „	2,589	3,435 „	128 15 11
Ground, unenumerated ..	4,308 „	4,030	3,067 „	153 6 9
Grease	3,964 cwt.	2,830	£2,860	572 0 1
Grindery—				
Heel- and toe-plates ..	..	1,219	£1,303	293 5 9
Unenumerated ..	..	19,717	..	..
Haberdashery	..	19,193	£19,198	3,839 12 3
Buttons	..	28,668	..	..
Sewing-cottons ..	..	59,255	..	..
Unenumerated ..	..	3,630	..	..
Hair	373 cwt.	1,716	..	..
Hardware	..	259,559	£248,965	49,793 1 9
Coffin furniture ..	..	2,354	£2,274	454 18 0
Hats and caps	139,713 doz.	70,013	£68,383	17,095 15 11
Hatters' materials ..	..	18,675	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Hemp	154 tons	6,000	..	..
Hides	2,294 No.	2,798	..	..
Honey	48 lb.	1	48 lb.	0 8 0
Hops	103,865 "	4,884	89,475 "	2,236 17 9
Hosiery	..	101,481	£100,373	20,074 12 1
Indiarubber and gutta-percha goods	..	7,412	£64	12 16 0
Ink—				
Printing	153,209 lb.	7,052	..	..
Writing	..	1,571	£1,475	294 18 10
Instruments, musical—				
Harmoniums and organs	867 No.	8,571	£8,400	1,679 19 2
Pianofortes	3,873 "	87,755	£85,821	17,164 3 8
Unenumerated ..	..	18,045	£17,864	3,572 17 2
For Volunteer bands ..	..	225	..	..
Materials for	..	1,800	£428	87 10 10
Instruments, other kinds—				
Optical	..	2,691	..	..
Scientific	..	3,279	..	..
Surgical and dental ..	..	24,381	..	..
Surveying	..	1,319	..	..
Unenumerated ..	..	50	..	..
Iron and steel—				
Angle	762 tons	7,061	..	..
Bar, bolt, and rod ..	14,065 "	147,384	..	..
Bolts and nuts ..	19,967 cwt.	22,610	..	..
Castings for ships ..	70 tons	2,155	..	..
Galvanised manufactures	..	1,020	£973	248 4 2
Hoop	1,649 tons	18,214	..	..
Hoop, galvanised ..	3,056 cwt.	2,268	3,059 cwt.	229 8 7
Pig	7,798 tons	38,402	..	..
Pipes and fittings ..	6,975 "	78,895	£78,729	3,936 8 11
Rails	16,885 "	119,590	..	..
Railway bolts and fastenings	2,117 "	28,754	£394	78 16 0
Sheet and plate ..	6,074 "	58,453	..	..
Sheet, galvanised, corrugated	167,115 cwt.	139,423	164,738 cwt.	16,473 16 1
Sheet, galvanised, plain	38,454 "	33,996	38,264 "	2,869 16 11
Staples and standards ..	336 tons	4,117	£4,046	809 5 11
Tanks	3,202 No.	9,995	3,186 No.	1,410 12 6
Wire, fencing, barbed ..	2,526 tons	33,129	..	..
Wire, fencing, plain ..	6,233 "	63,061	..	..
Wire, telegraph and telephone	166 "	2,331	..	..
Wire-netting	..	24,341	..	..
Wire, unenumerated ..	552 "	8,168	..	..
Unenumerated ..	2 "	33	..	..
Jams, jellies, and preserves	419,912 lb.	7,157	421,416 lb.	3,511 16 1
Jellies, concentrated ..	67,606 "	2,547	64,956 "	1,082 11 10
Jewellery	..	34,349	£33,593	6,718 11 11

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Lamps, lanterns, and lamp-wick	..	19,164	£18,735	3,746 19 7
Lard	10 cwt.	34	£34	6 16 0
Lead—				
Pigs and bars	635 tons	8,925	..	..
Pipe	451 cwt.	434	451 cwt.	79 1 11
Sheet	17,241 „	14,196	16,528 „	1,239 11 10
Manufactures ..	..	212	£212	42 11 0
Leather..	497,942 lb.	66,208	409,841 lb.	2,668 13 7
Chamois	..	491	£478	95 11 0
Leather manufactures—				
Boot and shoe vamps, uppers, laces, &c. ..	..	7,614	£7,669	1,725 12 5
Unenumerated ..	..	1,470	£1,420	293 12 5
Lighthouses materials ..	..	171	..	..
Linen piece-goods				
Forfar, dowlas, and flax sheetings	..	18,118	£1,640	328 1 6
Forfar, dowlas, &c., cut up under supervision ..	..	..	£13,116	..
Linens n.o.e.	..	17,702	£17,309	3,461 16 8
Hessians and scrim ..	..	54,093	..	..
Linseed	7 tons	116	7 tons	7 7 1
Liquorice	..	2,964	£3,014	602 15 11
Machinery and machines—				
Agricultural	..	72,698	..	..
Ploughs and harrows..	..	10,744	..	..
Dairying	..	30,054	..	..
„ engines for ..	32 No.	1,322	£2,129	106 9 0
„ boilers for ..	107 „	4,561	£4,986	249 6 0
Dredging	..	78,890	£76,068	3,803 8 6
Electric	..	63,203	£25,326	2,532 11 5
Engines, steam ..	48 No.	7,701	£8,024	1,604 16 0
„ boilers for ..	48 „	9,215	£2,355	471 0 0
„ gas	270 „	21,181	..	..
Flour-milling	..	2,590	£2,569	128 9 6
Gas-making	..	37,679	£37,211	3,721 3 0
Mining	..	37,014	..	..
„ engines for ..	91 No.	23,266	£23,360	1,168 0 6
„ boilers for ..	37 „	11,954	£12,046	602 6 0
Oil-refining	..	1,096	£1,096	54 16 0
Paper-milling	..	1,207	£928	46 8 0
Portable and traction engines	56 No.	22,946	..	..
Printing	..	21,176	£19,714	985 13 10
Refrigerating	..	11,881	£10,626	531 6 6
Sewing and knitting ..	11,425 No.	38,227	..	..
Wood-working	..	10,498	£1,657	82 17 6
Woollen-milling ..	..	10,551	£9,349	467 9 6
Unenumerated ..	..	105,410	£80,708	14,841 10 1
Materials for and parts of	..	13,926	£2,039	301 9 9
Malt	6,313 bush.	1,666	3,238 bush.	323 17 0
Rice malt	18,368 lb.	125	18,368 lb.	76 18 0

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
Manures—		£		£ s. d.
Bone-dust	9,045 tons	46,567	..	..
Guano	12,795 "	41,927	..	..
Unenumerated	11,886 "	45,692	..	..
Marble—				
Dressed or polished, and manufactures	..	6,932	£6,998	1,749 7 6
Hewn, or rough-sawn	272 tons	1,825	..	..
Matches and vestas—				
Wax	93,781 gross	15,308	79,263 gross	5,775 0 2
Wooden "	35,493 "	2,708	32,035 "	1,602 4 1
Mats and matting	..	6,466	£6,349	1,269 18 11
Meats, potted and preserved	57,535 lb.	2,309	£2,246	449 5 1
Medicines, patent and proprietary	..	33,661	£34,906	5,235 18 0
Metal, manufactures of—				
Japanned and lacquered metalware	..	1,269	£1,279	319 15 1
Not otherwise enumerated	..	10,864	£10,489	2,097 17 1
Weighbridges	..	2,391	£2,239	447 14 9
Anchors	545 No.	487	..	..
Rivets and washers	10,613 cwt.	9,828	..	..
Tacks	1,552 "	2,289	..	..
Type-writers	590 No.	7,543	..	..
Unenumerated	..	42,894	..	..
Metal sheathing, other than copper	913 cwt.	2,909	..	..
Milk, preserved	810,497 lb.	16,112	£16,438	4,109 7 8
Millinery—				
Feathers, ornamental	..	2,750	£2,743	685 17 4
Other kinds	..	40,630	£40,293	10,073 6 0
Minerals—				
Bitumen	5 cwt.	4	..	..
Manganese-ore	2 "	18	..	..
Nickle-ore	1 "	17	..	..
Mustard	240,044 lb.	13,507	241,273 lb.	2,010 12 2
Nails—				
Iron	62,970 cwt.	39,733	62,208 cwt.	6,220 17 0
Unenumerated	274 "	301	195 "	29 6 0
Naphtha	15,961 galls.	2,363	14,428 galls	360 14 2
Nuts—				
Almonds, in shell	6,871 lb.	148	7,452 lb.	62 2 8
Almonds, shelled	33,860 "	2,533	32,037 "	400 9 4
Almonds, Barbary, &c.	143,325 "	6,618	..	..
Cocoa	129,906 No.	471	..	..
Unenumerated	48,706 lb.	732	49,037 lb.	408 12 10
Oakum	1,015 cwt.	1,277	..	..
Oars	1,321 No.	225	..	..
Oils—				
Castor, bulk	92,025 galls.	12,568	79,303 galls.	1,982 11 5
Castor, bottled	1,287 doz. pt.	507	£450	67 9 7
Cod liver	5,345 galls.	1,073	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Oils—*continued.*				
Colza	14,202 galls.	2,147	13,828 galls.	345 14 0
Fish, penguin, and seal	42,479 "	4,137	..	..
Linseed	279,248 "	44,182	261,717 galls.	6,542 18 5
Kerosene	3,041,828 "	128,656		
Mineral, other kinds	219,800 "	17,820	156,432 "	3,910 16 3
Neatsfoot	1,515 "	168	1,466 "	36 12 11
Olive, bulk	7,542 "	1,458	7,192 "	179 15 10
Olive, bottled	3,514 doz. pts	1,659	£1,442	216 6 0
Whale	115 galls.	19	..	..
Unenumerated, bulk	162,301 "	17,550	148,636 galls.	3,715 18 4
Unenumerated, bottled	5,779 doz. pts	2,655	£2,731	409 13 1
Unenumerated	73,339 galls.	3,797	..	..
Oilmen's stores	..	7,179	£6,972	1,394 6 8
Onions	19,822 cwt.	10,082	20,157 cwt.	1,007 17 7
Opium	2,470 lb.	4,299	3,309 lb.	6,617 10 8
Paints and colours—				
Ground in oil	35,544 cwt.	48,553	34,243 cwt.	4,280 8 10
Mixed, ready for use	5,174 "	13,050	4,387 cwt.	1,096 15 11
Unenumerated	11,056 "	12,104	..	..
Paper—				
Bags, coarse	36 "	37	37 cwt.	13 17 6
Bags, other kinds	2,586 "	4,321	£4,386	1,096 7 7
Butter-paper	3,339 "	6,731	..	..
Paperhangings	1,051,616 pieces	29,675	£29,242	4,386 6 2
Printing	120,676 cwt.	113,428	..	..
Wrapping	4,379 "	5,726	4,099 cwt.	1,024 16 1
Writing	12,446 "	23,967	..	..
Unenumerated	658 "	1,101	..	..
Pearl barley	99 "	50	99 cwt.	4 18 5
Peas, split	1,184 "	588	1,187 "	118 13 6
Peel, candied and dried	18,072 lb.	414	17,988 lb.	224 17 0
Perfumery—				
Perfumed spirits	1,239 galls.	5,797	1,306 galls.	1,958 11 5
Toilet preparations	..	7,311	£7,104	1,775 18 6
Unenumerated	..	1,296	£1,403	350 17 3
Photographic goods	..	7,074	£6,855	1,345 13 0
Copper, glass, and zinc plates	..	1,374	..	..
Cameras and lenses	..	7,643	..	..
Sensitised surfaces	..	13,905	..	..
Pickles	6,196 galls.	1,711	5,846 galls.	876 19 11
Pictures, paintings, &c.	..	7,121	£5,870	1,174 1 1
Picture-frames and mounts	..	1,126	£1,125	225 0 4
Pitch	1,263 cwt.	620	..	..
Plants, trees, and shrubs,	..	4,103	..	..
Plaster of Paris	4,803 cwt.	1,184	..	..
Plate and plated ware	..	46,406	£44,832	8,966 9 5
Portmanteaux	..	4,535	£4,505	1,126 6 0
Leather and leather-cloth bags	..	78	£78	15 12 0
Potatoes	78 tons	170	£125	24 19 0

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Printing material—				
Stereotypes and matrices	..	264	£186	46 10 0
Type and materials, n.o.e.	..	13,845	..	..
Provisions n.o.e.	..	6,296	£6,216	1,243 2 6
Pumps	..	4,820	£3,828	765 13 1
Putty	5,545 cwt.	2,871	5,527 cwt.	552 14 2
Quicksilver	9,901 lb.	1,342	..	..
Rags	38 tons	161	..	..
Railway plant—				
Locomotives	57 No.	152,965	..	..
Parts of locomotives ..	..	40,128	..	..
Unenumerated ..	..	321,418	£2,156	431 4 0
Resin	11,411 cwt.	3,710	..	..
Rice	54,597 „	36,024	..	..
Rice-flour	72 „	65	109 cwt.	32 13 4
Rugs, all kinds	..	13,551	£13,420	2,684 0 1
Saccharine	6,876 oz.	301	6,508 oz.	488 2 0
Saddlery and harness ..	..	41,264	£33,561	6,712 5 8
Harness-oil and composition	..	2,739	£2,653	530 10 3
Saddlers' ironmongery ..	..	23,129	..	..
Collar-check	..	4,663	..	..
Salt	12,535 tons	26,894	..	..
Rock	395 „	869	..	..
Saltpetre	114 „	1,458	..	..
Sauces	13,636 gals.	9,429	13,659 gals.	2,731 14 8
Sausage-skins	186,285 lb.	9,683	187,667 lb.	2,345 16 9
Seeds—				
Grass and clover ..	13,670 cwt.	36,375	..	..
Unenumerated ..	..	24,294	..	..
Shale	201 tons	569	..	..
Shells	4 cwt.	19	..	..
Ship-chandlery	..	10,034	..	..
Silks	..	121,937	£121,558	30,389 11 9
For flour-dressing ..	..	262	..	..
Silver	800 oz.	98	..	..
Skins and pelts—				
Fur-skins	16,008 No.	520	..	..
Kangaroo and wallabi ..	27,275 „	1,234	..	..
Unenumerated ..	24,372 „	2,225	..	..
Slates, roofing	147,445 „	1,338	..	..
Soap—				
Common	10 cwt.	12	10 cwt.	2 8 9
Soap-powder, extract of soap, &c.	..	5,253	£4,960	992 0 8
Unenumerated ..	995,919 lb.	24,694	£24,384	6,095 18 7
Specie—				
Copper	..	3,239	..	..
Gold	..	437,322	..	..
Silver	..	23,938	..	..

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Specimens illustrative of natural science ..	..	354	..	..
Spices—				
Ground	21,016 lb.	929	20,300 lb.	338 6 8
Unground	371,455 „	11,767	384,127 „	3,201 1 2
Spirits—				
Bitters, cordials, and liqueurs	3,223 gals.	3,215	2,815 galls.	2,252 7 2
Brandy	82,252 „	32,882	72,197 „	57,757 7 10
Geneva and gin, unsweetened	82,890 „	20,222	64,721 „	51,777 2 0
Methylated	522 „	62	263 „	13 3 0
Rum	19,560 „	3,864	19,923 „	15,938 6 8
Sweetened	6,448 „	1,840	7,396 „	5,916 10 0
Whisky	491,888 „	171,331	423,647 „	338,917 18 5
Unenumerated ..	2,202 „	1,770	2,263 „	1,810 13 8
Spirits of wine	40,183 „	2,841	1,462 „	1,169 7 7
Methylated, in bond ..	..	..	33,569 „	839 4 4
Sponges	1,901 lb.	389	£342	51 5 0
Starch	994,363 „	10,881	954,217 lb.	7,951 16 2
Stationery—				
Manufactured	..	43,026	£39,020	9,755 0 4
Not otherwise enumerated	..	42,595	£35,977	7,195 7 8
Apparatus for teaching ..	..	5,498	..	..
Bookbinders' materials ..	..	6,234	..	..
Cardboard-boxes, materials for	..	10,285	..	..
Unenumerated ..	..	5,684	..	..
Stearine	298,067 lb.	6,631	287,625 lb.	898 16 7
Stone—				
Building	2,748 tons	4,463	..	..
Flagging	5 „	23	..	..
Granite, dressed ..	..	2,964	£2,972	743 0 0
Grind-, mill-, oil-, and whet-stones	..	2,786	..	..
Sugar—				
Raw	781,154 cwt.	390,591	2,912 lb.	6 1 4
Refined	116,533 „	95,115	79,366,154 „	165,346 3 1
Glucose	4,768 „	2,774	591,721 „	2,465 10 1
Molasses and treacle ..	4,082 „	1,456	2,513,712 „	5,236 18 0
Molasses, mixed with bone-black	87 „	27	..	..
Sulphur	5,971 „	2,195	..	..
Tallow	..	1	..	..
Tanning materials—				
Crude bark	4,100 tons	35,476	..	..
Other kinds	..	4,434	..	..
Tar	..	903	..	..
Tarpaulins and tents ..	..	2,914	£562	112 8 0
Tea	5,770,926 lb.	219,089	5,508,610 lb.	45,905 1 9
Textile piece-goods other than silk, cotton, linen, or woollen	..	18,393	£18,110	3,622 1 6
Articles made up from ..	..	10,271	£10,076	2,519 1 8

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Timber—				
Laths and shingles	344,450 No.	435	343,910 No.	34 7 9
Logs	2,546 „	11,239	..	..
Logs, hewn	8,660,087 sup. ft.	86,329	..	..
Palings	520,364 No.	3,171	520,364 No.	520 6 9
Posts	15,444 „	732	14,620 „	58 9 8
Rails	1,950 „	58	1,950 „	3 18 0
Sawn, undressed	8,509,984 sup. ft.	72,277	5,661,872 sup. ft.	5,661 17 5
Sawn, dressed	141,496 „	2,349	141,450 „	282 18 0
Unenumerated	..	2,562	..	..
Tin—				
Block	2,538 cwt.	15,770	..	..
Foil	32,688 lb.	1,456	..	..
Sheet	37,961 cwt.	34,088	..	..
Tinware	..	11,949	£11,890	2,972 10 9
Tinsmiths' furnishings and fittings	..	1,830	..	..
Tobacco—				
Unmanufactured	68,208 lb.	3,073	52,226 lb.	5,222 12 0
Manufactured	1,730,692 „	137,474	1,661,677 „	290,793 8 11
Cigars	107,537 „	34,598	87,165 „	30,507 13 2
Cigarettes	196,902 „	46,584	67,758,400 No.	59,288 12 0
Snuff	1,462 „	160	6,838 oz.	170 19 3
Tobacco-pipes and cases	..	20,460	1,492 lb.	522 4 0
Tools and implements—			£20,328	5,082 0 8
Axes and hatchets	..	10,303	..	..
Engineers' machine tools	..	27,342	..	..
Scythes	..	1,842	..	..
Sheep-shears	..	3,325	..	..
Spades, shovels, and forks	..	12,868	..	..
Unenumerated	..	84,523	..	..
Tramway plant	..	2,378	£2,378	475 12 0
Turpentine, driers, and terebine	108,213 gals.	14,273	..	..
Twine	417,801 lb.	14,066	£12,958	2,591 13 5
Binder	474 cwt.	1,319	..	..
Nets and netting	..	841	£796	159 5 7
Unenumerated	..	154	..	..
Umbrellas and parasols	..	19,027	£19,028	3,805 13 6
Materials for	..	3,883	..	..
Varnish and gold size	38,393 gals.	17,826	36,863 gals.	3,686 6 0
Vegetables, fresh, dried, and preserved	..	1,030	£974	194 15 6
Vinegar	46,439 gals.	4,788	48,696 gals.	1,217 8 1
Watches	39,156 No.	21,922	£20,773	4,154 11 3
Watchmakers' materials	..	693	..	..
Wax—				
Paraffin	863,561 lb.	12,295	897,193 lb.	2,803 14 7
Beeswax	69 cwt.	464	..	..
Vegetable	1,730 lb.	65	1,780 lb.	11 2 6

GENERAL IMPORTS INTO THE COLONY OF NEW ZEALAND DURING 1901—*continued.*

Articles.	Total Quantities Imported.	Value of Total Imports.	Entered for Home Consumption on Importation and ex Warehouse.	Amount of Duty received.
		£		£ s. d.
Whiting and chalk ..	12,343 cwt.	1,398	12,344 cwt.	617 4 9
Wine—				
Australian	62,356 gals.	21,643	55,321 gals.	13,830 7 0
Sparkling	11,212 "	20,164	10,348 "	4,656 11 11
Other kinds	60,048 "	22,030	57,923 "	17,377 0 7
Woodenware	..	23,110	£14,983	2,996 14 3
Mouldings	..	12,535	£12,157	1,823 11 7
Wool—				
Greasy	1,149,734 lb.	30,707	..	..
Scoured	256,401 "	7,037	..	..
Woollen piece-goods ..	..	319,770	£317,089	63,417 15 11
Blankets	24,616 pairs	9,811	£9,767	1,953 9 3
Woolpacks	35,304 doz.	36,864	..	..
Woolpockets	520 "	268	..	..
Yarns	..	5,534	£5,709	1,141 17 0
Coir, flax, and hemp ..	..	10,692	..	..
Zinc—				
Perforated sheet ..	474 cwt.	854	..	..
Plain sheet	7,686 "	9,382	..	..
Spelter	4,319 "	4,534	..	..
Zinc manufactures ..	..	154	£154	31 4 0
Minor articles required for the making-up of apparel	..	8,086	..	..
Articles and materials suited only for and to be used solely in the fabrication of goods in the colony ..	..	23,495	..	..
Miscellaneous goods—				
Manufactured	..	12,839	..	..
Unmanufactured ..	..	4,540	..	..
Vanilla beans	27,752 lb.	8,348	..	..
Parcels Post	..	109,683	..	22,405 10 5
EXCISE DUTIES.				
Tobacco, manufactured ..	..	..	51,930 lb.	2,596 10 0
Cigars	..	..	2,160 "	162 0 0
Cigarettes made by hand ..	..	..	238 "	11 18 0
Pharmacopœia tinctures, essences, extracts, and medicinal spirits containing more than 50 per cent. of proof spirit	..	..	53,501 "	2,006 5 7
Pharmacopœia tinctures, &c., containing less than 50 per cent. of proof spirit	..	..	1,545 "	19 6
Culinary and flavouring essences	..	..	288 gals.	172 19 0

Customs Revenue.

The Customs and excise duties received during the last five years are shown in detail, also the rate of revenue per head of mean population, inclusive and exclusive of Maoris, for each year:—

—	1897.	1898.	1899.	1900.	1901.
Customs Duties.	£	£	£	£	£
Spirits	384,218	395,513	414,395	442,090	478,816
Wine	30,518	31,138	32,045	33,614	35,864
Ale, Beer, &c.	19,035	19,158	17,594	17,562	18,849
Cigars, Cigarettes, and Snuff	65,347	71,430	77,810	82,357	90,490
Tobacco	244,669	257,516	263,057	279,651	296,016
Tea	76,081	78,676	79,975	68,960	45,905
Coffee, Cocoa, &c.	5,722	5,463	6,968	5,285	4,647
Sugar and Molasses	148,748	154,355	162,787	168,876	173,055
Opium	5,625	5,501	6,139	6,426	6,618
Other Goods by Weight	187,498	187,758	192,987	178,554	151,286
" ad valorem	634,043	637,506	682,722	775,649	808,531
Other Duties	102,025	105,987	91,155	94,687	59,316
Parcels Post	8,632	11,725	14,368	16,643	22,405
Totals, Customs Duties	1,912,161	1,961,726	2,042,002	2,170,354	2,191,798
Excise Duties.					
Tinctures—New Zealand	983	*1,244	†2,036	‡1,638	§2,198
Cigars, Cigarettes, and Snuff—New-Zealand-manufactured	191	152	91	129	174
Tobacco — New-Zealand-manufactured	2,358	2,282	2,323	2,376	2,596
Beer—New Zealand	71,765	75,164	78,265	85,141	89,185
Totals, Excise Duties	75,297	78,842	82,715	89,284	94,153
Revenue from Customs Duties per head of mean population (excluding Maoris)	£ s. d. 2 13 0	£ s. d. 2 13 3	£ s. d. 2 14 5	£ s. d. 2 16 10	£ s. d. 2 16 4
Ditto (including Maoris)	2 10 3	2 10 6	2 11 8	2 14 0	2 13 5
Revenue from Excise Duties per head of mean population (excluding Maoris)	0 2 1·0	0 2 1·7	0 2 2·5	0 2 4	0 2 5
Ditto (including Maoris)	0 1 11·7	0 2 0·4	0 2 1·1	0 2 2·7	0 2 3·5

* Including £89 excise duty on culinary and flavouring essences. † Including £149 excise duty on culinary and flavouring essences, and £11 on perfumed spirits. ‡ Including £89 excise duty on culinary and flavouring essences. § Including £173 duty on culinary and flavouring essences, and £19 on perfumed spirits.

The Customs revenue for the year 1901 amounted to £2,191,798, and the excise duties to £94,153. The revenue from Customs was £2 16s. 4d. per head of population excluding Maoris, and £2 13s. 5d. if they be included. In 1888 the Customs revenue was £2 6s. 2d. per head of European population, and from that time the proportion increased slowly year by year until 1892, when it reached

£2 11s. 6d. per head. During the next two years there was a falling-off; but 1895 and following years show increases, the proportion for 1900 being higher than in any year since 1883. Details for twelve years are given:—

CUSTOMS REVENUE PER HEAD OF EUROPEAN POPULATION.

	£	s.	d.		£	s.	d.
1890	2	9	3	1896	2	9	11
1891	2	9	7	1897	2	13	0
1892	2	11	6	1898	2	13	3
1893	2	10	4	1899	2	14	5
1894	2	6	4	1900	2	16	10
1895	2	6	9	1901	2	16	4

Dating from 1890, the taxation by way of Customs and excise duties together increased from £2 11s. 2d. in that year to £2 11s. 11d. in 1896, to £2 15s. 1d. in 1897, to £2 15s. 5d. in 1898, to £2 16s. 8d. in 1899, to £2 19s. 2d. in 1900, and declined to £2 18s. 9d. in 1901.

There was an alteration of tariff in 1895 in certain items, but the amount of duty paid in 1899 does not bear a higher proportion to the total value of imports (less specie) for that year than the duty paid in 1894, prior to the new tariff, to the imports of that year.

In the year 1900 certain duties were lowered and exemptions granted. Tea is now charged only 2d. per pound, instead of 4d.; currants and raisins are lowered to 1d. per pound; candles are 1d.; cocoa and roasted coffee, 3d. There is also reduction on stearine for match making, on paraffin-wax, and wax matches. Patent and proprietary medicines bear 15 per cent. duty, also certain drugs and chemicals. Steam-engines, or parts thereof, are charged 5 per cent. The new exemptions are various.

With these circumstances there has been a greater import of taxable articles, which would seem to indicate that purchasing power had increased. It is at least certain that the value of imports rose from £5,990,177 (excluding specie), in 1894, to £11,353,416 in 1901, notwithstanding the changes of tariff.

The tariff has been given in full in this book (see pages 83 to 99.) The rates of duty levied include 16s. per gallon on spirits; 30s. per gallon on perfumed spirits; 7s. per pound on cigars and snuff; 17s. 6d. per 1,000 of 2½lb. and under, and 6d. per ounce weight over 2½lb. per 1,000, on cigarettes; 3s. 6d. per pound on manufactured and 2s. on unmanufactured tobacco. Sparkling wine is charged 9s. a gallon; Australian, 5s.; other kinds, 6s.; ale and beer, 2s. The duty on tea is 2d. the pound; on cocoa, chocolate, and chicory, 3d.; raw coffee, 2d.; roasted, 3d. Sugar, molasses, and treacle pay ½d., and glucose 1d. per pound. Opium is charged 40s. per pound. The remainder of the Customs revenue, with small exception, is made up of charges on goods by weight, *ad valorem* duties, ranging from 5 to 40 per cent., and receipts from the foreign parcels post. There is also an excise duty of 1s. per pound on tobacco; 1s. 6d. per pound on cigars, cigarettes, and snuff; 3d. per gallon on beer; 9d. per pound on tinctures, &c., manufactured in

the colony, containing more than 50 per cent. of proof spirit, and 3d. per pound when less than 50 per cent. Also, 12s. per gallon on culinary flavouring essences ; and 20s. on perfumed spirits.

By "The Tobacco Excise Duties Act, 1896," the excise duty on cigarettes made in the colony is now (from the 31st December, 1896) 2s. 6d. per pound on machine-made and 1s. per pound on hand-made cigarettes.

"The Tobacco Act Amendment Act, 1896," enacts that all packages of manufactured tobacco shall be labelled before leaving the manufactory, and provides for the issue of warrants to use cutting-machines for cutting duty-paid manufactured tobacco for sale (or to be used in the manufacture of cigarettes by hand), and to manufacture cigarettes by hand, under certain conditions.

The duties authorised by "The Timber Export Act, 1901," will be found given on page 99 in detail with the full tariff.

SECTION III.—EXPORTS AND TOTAL TRADE

THE value of all the exports in 1901, exclusive of horses and forage sent to South Africa with the New Zealand Contingents, was £12,881,424; the value of New Zealand produce exported, £12,690,460: an average of £16 6s. 3d. per head of population, against £17 1s. 11d. for the previous year. The decrease in the value of exports of New Zealand produce for 1901 in respect of that for 1900 amounts to £364,789, or 2·79 per cent.

A comparative table showing the value of New Zealand domestic exports for fourteen years is given further on, with comments. The continuous rise observed from 1895 to 1900 was arrested in 1901.

A comparative statement of exports according to value for the two years is given, showing the amounts for various principal articles, being the produce or manufacture of the colony, classified according to their nature into groups :—

	Year 1900.	Year 1901.	Increase in 1901.	Decrease in 1901.
THE MINE.	£	£	£	£
Coal	98,136	142,176	44,040	..
Gold	1,439,602	1,753,784	314,182	..
Silver, and minerals	52,474	74,003	21,529	..
Total	1,590,212	1,969,963	379,751	..
THE FISHERIES.				
Fish	18,644	17,851	..	793
Oysters	1,952	3,201	1,249	..
Other	1,078	965	..	113
Total	21,674	22,017	343	..
THE FOREST.				
Fungus	7,192	12,453	5,261	..
Kauri-gum	622,293	446,114	..	176,179
Timber—				
Sawn and hewn	232,174	294,699	62,525	..
Other	1,485	1,191	..	294
Total	863,144	754,457	..	108,687
ANIMALS AND PRODUCE.				
Bacon and hams	16,777	17,722	955	..
Beef and pork (salted) ..	9,530	10,225	695	..
Butter	740,620	882,406	141,786	..
Cheese	229,111	238,685	9,574	..
Hides	42,039	43,470	1,431	..
Live-stock	39,675	16,518	..	23,157

	Year 1900.	Year 1901.	Increase in 1901.	Decrease in 1901.
	£	£	£	£
ANIMALS AND PRODUCE—*contd.*				
Preserved meats	94,524	87,683	..	6,841
Frozen meat	2,123,881	2,253,262	129,381	..
Rabbit-skins	41,689	57,046	15,357	..
Sausage-skins	43,158	39,498	..	3,660
Sheepskins and pelts	279,391	264,579	..	14,812
Tallow	368,473	351,710	..	16,763
Wool	4,749,196	3,699,103	..	1,050,093
Other	8,794	7,280	..	1,514
Total	8,786,858	7,969,197	..	817,661
AGRICULTURAL PRODUCTS.				
Bran and sharps	13,062	15,294	2,232	..
Chaff	75	92	17	..
Flour	17,044	8,495	..	8,549
Grain—				
Barley	28,235	13,241	..	14,994
Beans and peas	25,275	26,028	753	..
Maize	24,575	15,085	..	9,490
Malt	50,506	32,252	..	18,254
Oats	552,270	922,301	370,031	..
Wheat	351,494	276,111	..	75,383
Hops	13,874	17,189	3,315	..
Oatmeal	26,622	27,591	969	..
Potatoes	25,134	90,658	65,524	..
Seeds (grass and clover) ..	93,006	69,937	..	23,069
Other	9,393	18,112	8,719	..
Total	1,280,565	1,532,386	301,821	..
MANUFACTURES.				
Apparel	3,654	7,227	3,573	..
Leather	112,867	112,400	..	467
Phormium (New Zealand hemp)	332,182	195,728	..	136,454
Woollen manufactures ..	12,528	13,759	1,231	..
Other manufactures	88,111	96,028	7,917	..
Total	549,342	425,142	..	124,200
Miscellaneous	13,454	17,298	3,844	..
Total exports (colonial produce and manufactures) ..	13,055,249	12,690,460	..	364,789
Specie	22,903	11,614	..	11,289
Other exports (British and foreign)	168,009	179,350	11,341	..
Total exports ..	£13,246,161	12,881,424	..	364,737

The class designated "Animals and Produce" shows by far the greatest value, the sum for 1901 being £7,969,197, which includes £3,699,103 for wool and £2,253,262 for frozen meat. The total value of exports in this class decreased during the year by £817,661, on a total of £8,786,858 in 1900.

"The Mine" takes second place among the classes for total value, with an export of coal, gold, silver, and other minerals amounting to £1,969,963 for 1901, being an increase of £379,751 on £1,590,212, the export for the previous year.

"Agricultural Products," principally grain, potatoes, and seeds, take third place, and show an advance of £301,821 on the value exported in 1900, oats and potatoes contributing the bulk of the increase.

"The Forest" shows the export for last year to be £754,457, which, on account of a falling off in the kauri-gum industry, gives a decrease of £108,687.

"Manufactures" are set down at £425,142 in 1901, being £124,200 less than in the previous year. Phormium shows a decline on the operations for 1900 of £136,454. Woollen manufactures sent abroad increased slightly; and leather decreased by £467.

The smallest group in respect to value is "The Fisheries," which, however, shows an increase in value. The total for the group was £22,017 last year.

The exports of New Zealand produce or manufacture for the two last years have also to be considered in relation to quantity, and the articles are again grouped in the next table according to the same classification as that used for purposes of comparing the values.

QUANTITIES OF THE PRINCIPAL ARTICLES OF NEW ZEALAND PRODUCE EXPORTED.

Items.		Year 1900.	Year 1901.	Increase in 1901.	Decrease in 1901.
The Mine:—					
Coal	Tons	112,707	159,643	46,936	..
Gold	Oz.	373,614	455,558	81,944	..
Silver	"	326,457	571,134	244,677	..
Minerals	Tons	2,335	945	..	1,390
The Fisheries:—					
Fish	Cwt.	11,283	11,020	..	263
Oysters	Doz.	234,992	383,680	148,688	..
Whalebone ..	Lb.	6,608	1,232	..	5,376
The Forest:—					
Fungus	Cwt.	4,139	5,902	1,763	..
Gum (kauri) ..	Tons	10,159	7,541	..	2,618
Timber (sawn and hewn)	Ft.	57,517,085	71,822,369	14,305,284	..
Animals and Produce:—					
Bacon and hams ..	Cwt.	5,334	5,500	166	..
Beef and Pork (salted)	"	8,192	8,281	89	..
Butter	"	172,583	201,591	29,008	..
Cheese	"	102,849	104,294	1,445	..
Hides	No.	47,292	47,875	583	..
Live-stock	"	5,674	4,298	..	1,376
Meats (preserved) ..	Cwt.	44,402	35,258	..	9,144
" (frozen) ..	"	1,844,831	1,857,547	12,716	..
Sausage-skins ..	"	9,391	9,133	..	258
Skins (rabbit) ..	No.	5,690,893	7,112,008	1,421,115	..
" (sheep) and pelts	"	4,669,430	4,601,531	..	67,899
Tallow	Cwt.	367,780	335,360	..	32,420
Wool	Lb.	140,706,486	146,820,079	6,113,593	..

QUANTITIES OF THE PRINCIPAL ARTICLES OF NEW ZEALAND PRODUCE EXPORTED—*continued.*

Items.		Year 1900.	Year 1901.	Increase in 1901.	Decrease in 1901.
Agricultural Products:—					
Bran and sharps	Tons	4,492	4,754	262	..
Chaff	"	25	28	3	..
Flour	"	2,613	1,305	..	1,308
Grain, barley	Bush.	243,048	119,779	..	123,269
" beans and peas	"	174,523	166,184	..	8,339
" maize	"	193,720	124,447	..	69,273
" malt	"	220,893	141,324	..	79,569
" oats	"	5,818,648	10,514,924	4,696,276	..
" wheat	"	2,867,069	2,301,092	..	565,977
Hops	Cwt.	2,876	4,298	1,422	..
Oatmeal	Tons	2,972	3,323	351	..
Potatoes	"	13,422	22,834	9,412	..
Seeds (grass and clover)	Bush*	351,630	294,347	..	57,283
Manufactures:—					
Ale and beer	Gals.	18,615	19,449	834	..
Cordage	Cwt.	1,532	647	..	885
Leather	Cwt.	18,131	18,281	150	..
Phormium (New Zealand hemp)	Tons	15,906	10,171	..	5,735
Soap	Cwt.	3,936	6,014	2,078	..

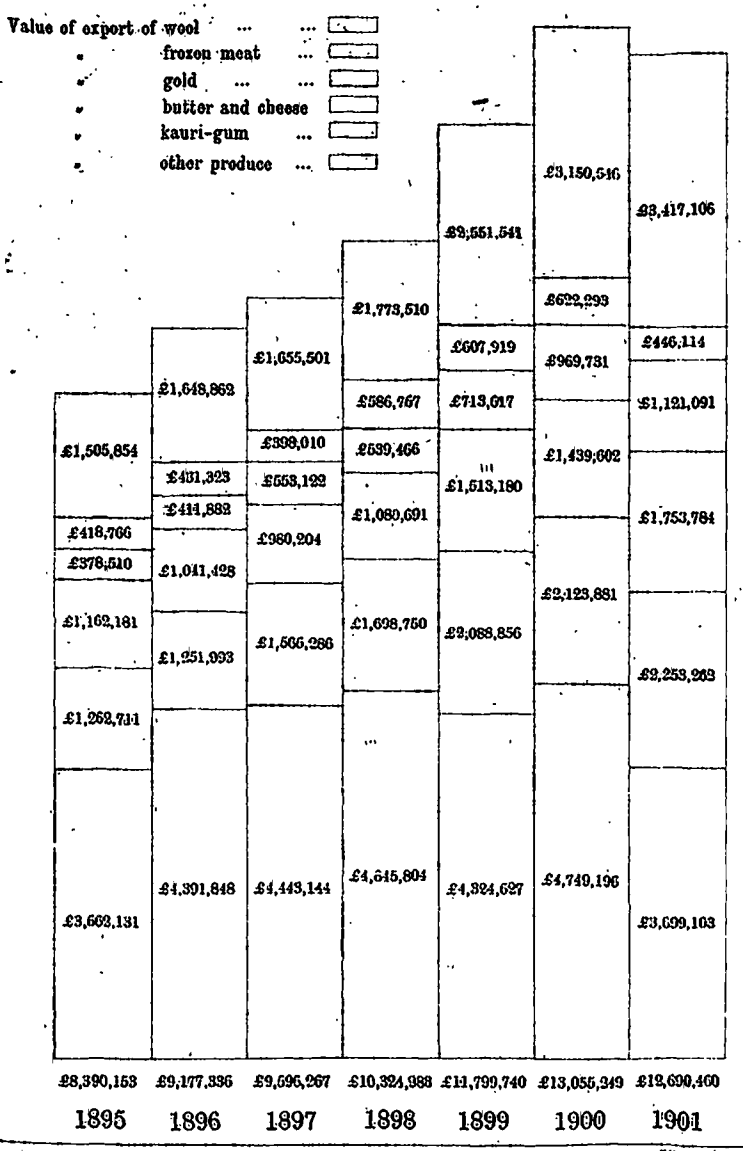
* At 20 lb. to the bushel.

The numerical increases in such articles as butter, oats, wool, coal, silver, gold, timber, potatoes, hops, rabbitskins, and soap, are all most satisfactory, and in some cases (notably butter, timber, gold, silver, coal, oats, and potatoes) very considerable; while, on the other hand, the export of tallow, sheepskins, pelts, and phormium, and some other items (including kauri-gum), declined in 1901. The rates of increase and decrease for the principal articles are exhibited in the table following:—

INCREASES.

Export of		Rate of Increase per Cent. in 1901 over Quantity in 1900.	Export of		Rate of Increase per Cent. in 1901 over Quantity in 1900.
Oats	Bush.	80·71	Chaff	Tons	12·00
Silver	Oz.	74·95	Oatmeal	Tons	11·81
Potatoes	Tons	70·12	Leather	Cwt.	8·27
Oysters	Doz.	63·27	Bran and sharps	Tons	5·83
Soap	Cwt.	52·79	Ale and beer	Gals.	4·48
Hops	Cwt.	49·44	Wool	Lb.	4·34
Fungus	Cwt.	42·59	Bacon and hams	Cwt.	3·11
Coals	Tons	41·65	Cheese	Cwt.	1·40
Rabbit-skins	No.	24·97	Hides	No.	1·23
Timber	Ft.	24·87	Beef and pork	Cwt.	1·09
Gold	Oz.	21·94	Meat (frozen)	Cwt.	0·69
Butter	Cwt.	16·81			

EXPORTS.—Showing rise in the Value of Exports of New Zealand Produce, &c., 1895 to 1901.



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DECREASES.

Export of		Rate of Decrease per Cent. in 1901 over Quantity in 1900.	Export of		Rate of Decrease per Cent. in 1901 over Quantity in 1900.
Whalebone ..	Lb. ..	81·36	Preserved meat	Cwt. ..	20·59
Minerals ..	Tons ..	59·53	Wheat ..	Bush. ..	19·74
Cordage ..	Cwt. ..	57·77	Seeds ..	Bush. ..	16·29
Barley ..	Bush. ..	50·72	Tallow ..	Cwt. ..	8·82
Flour ..	Tons ..	50·06	Beans and peas	Bush. ..	4·78
Phormium ..	Tons ..	36·06	Sausage-skins ..	Cwt. ..	2·75
Malt ..	Bush. ..	36·02	Fish	Cwt. ..	2·33
Maize ..	Bush. ..	35·76	Sheepskins and pelts ..	No. ..	1·45
Gum (Kauri) ..	Tons ..	25·77			
Live-stock ..	No. ..	24·25			

The position as to value in respect of a period of fourteen years, 1888 to 1901 inclusive, is presented in a table giving the domestic exports for each. The most important items of export given under the heading "Other New Zealand Produce" are coal, silver, minerals, fish, oysters, fungus, kauri-gum, timber, bacon and hams, salted and preserved meats, tallow, sheep- and rabbit-skins, hides, sausage-skins, and live-stock. The aggregate value of these in 1901 was £1,881,114.

EXPORTS OF NEW ZEALAND PRODUCE.

Calendar Year.	Wool.	Gold.	Frozen Meat.	Butter and Cheese.	Agricultural Produce.	Manufactures	Other N.Z. Produce.	Total.
	£	£	£	£	£	£	£	£
1888	3,115,098	914,309	628,800	197,170	905,907	283,383	1,260,461	7,255,128
1889	3,976,375	785,490	783,374	213,945	1,424,297	569,880	1,288,647	9,042,008
1890	4,150,599	751,360	1,087,617	207,687	1,289,864	547,947	1,393,687	9,428,761
1891	4,129,686	1,007,172	1,194,724	235,933	894,467	420,357	1,516,755	9,400,094
1892	4,313,307	951,963	1,038,377	318,204	1,035,637	367,677	1,345,703	9,365,868
1893	3,774,738	915,921	1,085,167	354,271	716,546	345,636	1,365,164	8,557,443
1894	4,827,016	887,865	1,194,545	366,483	317,655	224,958	1,266,626	9,085,148
1895	3,662,131	1,162,181	1,262,711	378,510	326,029	188,702	1,409,889	8,390,153
1896	4,391,848	1,041,428	1,251,993	411,882	572,355	198,081	1,309,749	9,177,336
1897	4,443,144	980,204	1,566,286	553,122	495,175	197,601	1,360,735	9,596,267
1898	4,645,804	1,080,691	1,698,750	539,466	410,677	253,805	1,695,795	10,324,988
1899	4,324,627	1,513,180	2,088,856	713,617	913,678	378,066	1,867,716	11,799,740
1900	4,749,196	1,439,602	2,123,881	969,731	1,230,565	549,342	1,992,932	13,055,249
1901	3,699,103	1,753,784	2,253,262	1,121,091	1,532,386	425,142	1,905,692	12,690,460

The preceding table shows that the value of the exports of New Zealand produce fell from £9,428,761 in 1890 to £8,390,153 in 1895, rose in 1896 to £9,177,336, in 1897 to £9,596,267, in 1898 to £10,324,988, in 1899 to £11,799,740, in 1900 to £13,055,249, and in 1901 declined to £12,690,460.

Thus there was a net increase of exports, since 1895, to the value of £4,300,307, all New Zealand produce, and far more than

a recovery to the figures for 1890 and 1891 (after which had followed a decrease in values). With the amount of increase in money must be considered the state of prices of the various kinds of produce.

The export of wool, measured by quantity, rose from 102,817,077 lb. in 1890 to 146,820,079 lb. in 1901, or at the rate of 42·80 per cent., and that of frozen meat from 898,894 cwt. to 1,857,547 cwt.

Gold, too, which was exported to the quantity of 187,641 oz. in 1890, increased to 455,558 oz. in 1901, the rate of increase being upwards of 142·78 per cent.

Re-exports.

The re-export trade of the colony would seem from the sub-joined figures to have been almost stationary for the last ten years, the figures for 1890 and 1901 only differing by a sum of £38,795. The re-exports of merchandise in 1901 were valued at £179,350, or only a little more than 1 per cent. of the total exports, excluding specie.

EXPORTS OF BRITISH, FOREIGN, AND OTHER COLONIAL PRODUCE (EXCLUDING SPECIE).

	£		£
1890	140,555	1896	122,571
1891	160,765	1897	144,955
1892	125,052	1898	124,850
1893	123,402	1899	123,682
1894	136,402	1900	168,009
1895	127,966	1901	179,350

With these sums may be contrasted the re-export trade of New South Wales—a State having less than double the population of New Zealand—which, exclusive of specie, amounted in 1900 to £4,708,567, or no less than 21·16 per cent. of the value of all goods exported.

Exports from the North and Middle Islands.

The exports from the North and Middle Islands respectively, excluding "Parcels post," during the last three years were as under:—

Year.	North Island.	Middle Island.	Proportion to Total Export.	
	£	£	North Island.	Middle Island.
1899	6,011,239	5,916,290	50·40	49·60
1900	6,707,964	6,526,397	50·70	49·30
1901	6,077,724	6,787,546	47·24	52·76

The Middle Island exported in 1901 more than half of the total for the two islands.

Wool exported and produced.

The quantity of wool exported in 1901, as previously shown, was 146,820,079 lb., valued at £3,699,103, an increase of 6,113,593 lb., or

4·34 per cent. on the quantity exported in the previous year, but a decrease of £1,050,093, or 22·11 per cent. on the value. The annual production of wool is best estimated by taking the exports for the twelve months immediately preceding the commencement of shearing, and adding thereto the quantity used in the colony for manufacturing purposes.

The following shows the produce for each of the last fourteen years ending on the 30th September :—

Year ending 30th September.	Quantity exported.	Quantity purchased by Local Mills.	Total Annual Produce.
	Lb.	Lb.	Lb.
1888	89,276,268	4,079,563	93,355,831
1889	95,618,507	3,556,004	99,174,511
1890	102,522,185	2,979,293	105,501,478
1891	108,619,473	2,918,073	111,537,546
1892	110,860,050	3,388,954	114,249,004
1893	119,643,874	2,629,855	122,273,729
1894	128,480,457	2,476,155	130,956,612
1895	129,333,769	3,299,132	132,632,901
1896	128,309,673	3,989,934	132,299,607
1897	134,410,955	3,298,469	137,709,424
1898	150,401,399	3,763,831	154,165,230
1899	143,644,203	4,258,505	147,902,708
1900	144,829,515	3,223,392	148,052,907
1901	143,064,789	4,629,924	147,694,713

From these figures it appears that, notwithstanding the decrease since 1898, the wool-clip has increased by over 58 per cent. during the last fourteen years.

To arrive at a perfectly correct estimate of the increase in wool production it would be necessary to take into consideration the proportion of greasy, scoured (and sliped), and washed wool exported each year, the washing process of course greatly reducing the weight. The percentages of greasy, scoured, and washed wool to the total quantities exported during the last four years are :—

Years.	Greasy. Per Cent.	Scoured and Sliped. Per Cent.	Washed. Per Cent.
1898	78·62	20·36	1·02
1899	77·54	21·64	0·82
1900	78·62	20·10	1·28
1901	78·25	20·61	1·14

The increase in the wool-production is, of course, mainly due to the greater number of sheep—namely, 20,233,099 in April, 1901, against 15,423,328 in May, 1889. A comparative statement for several years is supplied, showing the number of flocks in groups of sizes :—

NUMBER OF FLOCKS, 1890 TO 1901.

Size of Flocks.	1890.	1892.	1894.	1896.	1898.	1900.	1901.
Under 500	7,662	8,822	10,314	12,028	12,836	12,239	11,700
500 and under 1,000..	1,528	2,033	2,427	2,605	2,708	2,810	3,059
1,000 „ 2,000..	854	1,193	1,409	1,460	2,412*	2,621†	2,877‡
2,000 „ 5,000..	586	761	933	892			
5,000 „ 10,000..	283	314	345	340	341	352	397
10,000 „ 20,000..	236	231	230	231	231	196	189
20,000 and upwards ..	160	176	179	147	144	139	138
Totals ..	11,309	13,530	15,837	17,703	18,722	18,357	18,360

* From 1,000 to 2,500, 1,798 flocks; from 2,500 to 5,000, 614 flocks.
† From 1,000 to 2,500, 1,971 flocks; from 2,500 to 5,000, 650 flocks.
‡ From 1,000 to 2,500, 2,189 flocks; from 2,500 to 5,000, 688 flocks.

It will be apparent that the general tendency of increase since the year 1890 is towards the multiplication of the smaller flocks, whose owners are better able to cope with the rabbit difficulty than the large runholders.

Export of Rabbit-skins.

Prior to 1878 rabbit-skins were a very small item in the exports, but in that year the number sent out of the colony amounted to 3,951,209. Ten years after (1888) the export had risen to 11,809,407, from which it increased to 17,041,106 in 1893, the greatest number as yet exported in a year. From 1895 the fall was rapid, and the export for 1898 only reached 6,607,934 skins. In 1899 there was a slight upward tendency, the number exported being 7,891,648, which, however, fell to 5,690,893 in the year 1900, while in 1901 7,122,008 skins were exported.

The figures for the years in which there has been decline are quoted :—

Year.	Number of Rabbit-skins exported.	Year.	Number of Rabbit-skins exported.
1893	17,041,106	1898	6,607,934
1894	14,267,385	1899	7,891,648
1895	15,229,314	1900	5,690,893
1896	10,828,612	1901	7,112,008
1897	8,099,334		

From the above it will be seen that the importance of the export has very much diminished. The fall, represented in money value, has been :—

Year.	Value of Rabbit-skins exported. £	Year.	Value of Rabbit-skins exported. £
1893	138,952	1898	51,607
1894	87,993	1899	81,118
1895	85,022	1900	41,689
1896	65,599	1901	57,046
1897	47,472		

While the amount of money received for this produce of the colony shows less profit than formerly, it may be a satisfactory

result, as seemingly indicating some abatement of the rabbit pest. Large quantities of frozen rabbits are now exported, and are alluded to in the remarks on the frozen meat industry on the next page.

Export of Sheepskins and Pelts.

These form a more important article of export at the present time than the rabbit-skins, though in the year 1888 the position was the reverse as regards value in money. In 1888 the number of sheepskins and pelts sent away from New Zealand was 1,646,401, against 4,601,531 in 1901, a rise of 179·49 per cent. for the period between those years. The value increased from £83,574 to £264,579, or 216·58 per cent. Figures for the last eight years are quoted:—

Year.	Export of Sheepskins and Pelts. No.	Year.	Export of Sheepskins and Pelts. No.
1894 ..	.. 2,681,552	1898 ..	.. 4,995,325
1895 ..	.. 3,230,539	1899 ..	.. 4,960,054
1896 ..	.. 3,001,791	1900 ..	.. 4,669,430
1897 ..	.. 3,688,051	1901 ..	.. 4,601,531

Export of Tallow.

Besides wool and meat, tallow is largely exported, and since the year 1888, when 136,460 cwt. were sent away, the export increased to 335,360 cwt. in 1901. In value this export considerably exceeds that of either sheepskins or rabbit-skins, and the money is indeed more than the total for those two articles taken together. The eight latest years show the following results:—

TALLOW EXPORTED.

Years.	Cwt.	£	Years.	Cwt.	£
1894 ..	.. 199,400	204,499	1898 ..	.. 347,160	302,141
1895 ..	.. 263,560	260,999	1899 ..	.. 338,620	311,649
1896 ..	.. 222,540	208,821	1900 ..	.. 367,780	368,473
1897 ..	.. 310,200	259,964	1901 ..	.. 335,360	351,710

Frozen Meat exported.

Frozen meat now takes second place among the exports of New Zealand produce. In 1901, 1,857,547 cwt., valued at £2,253,262, were shipped in the colony. An account of the development of the industry was given in a special article in the Year-book, 1894. The total export for each year since the commencement of the trade has been:—

Year.	Lb.	Year.	Lb.
1882 ..	.. 1,707,328	1892 ..	.. 97,636,557
1883 ..	.. 9,853,200	1893 ..	.. 100,262,453
1884 ..	.. 28,445,228	1894 ..	.. 114,827,216
1885 ..	.. 33,204,976	1895 ..	.. 127,018,864
1886 ..	.. 38,758,160	1896 ..	.. 123,576,544
1887 ..	.. 45,035,984	1897 ..	.. 157,687,152
1888 ..	.. 61,857,376	1898 ..	.. 173,798,576
1889 ..	.. 73,564,064	1899 ..	.. 208,972,624
1890 ..	.. 100,934,756	1900 ..	.. 206,621,072
1891 ..	.. 110,199,082	1901 ..	.. 208,045,264

The above figures for 1899 include 129,224 cwt., or 4,876,534 (number) of frozen rabbits and hares in the skin; those for 1900 include 12,260 (731 cwt.) of hares, and 6,501,997 rabbits, weighing 167,971 cwt., valued at £154,856, and those for 1901, include 42,202 (2,943 cwt.) of hares, and 4,830,669 (124,353 cwt.) of rabbits, valued at £117,813, so that these animals can hardly now be looked upon as wholly a nuisance.

To ascertain the total value of the meat export in 1901 it is necessary to take into consideration, with the amount of £2,253,262, value of frozen meat before stated, £10,858 for frozen fish; also the value of preserved meats, £87,683; of salted beef and pork, £10,225; and of bacon and hams, £17,732.

Gold exported.

The amount of gold exported in 1901 was 455,558 oz., an increase of 81,944 oz. on the quantity exported in 1900.

The total quantity of gold entered for duty to the 31st December, 1901, which may be reckoned as approximately the amount obtained in the colony, was 15,064,459 oz., of the value of £59,159,884. For fuller information, see special section on mining.

Grain exported.

The value of the grain exported in 1901 was £1,285,811. The grain exports for 1900 and 1901 were made up as under:—

	1900.		1901.	
	Bushels.	£	Bushels.	£
Wheat	2,867,069	351,494	2,301,092	276,111
Oats	5,818,648	552,270	10,514,924	922,301
Barley	243,048	28,235	119,779	13,241
Malt	220,893	50,506	141,324	32,252
Maize	193,720	24,575	124,447	15,085
Peas and beans	174,523	25,275	166,184	26,028
Rye and unenumerated ..	11,946	1,659	5,765	793
Total quantity and value	9,529,847	£1,034,014	13,373,515	£1,285,811

Compared with the previous year the quantity and value of grain exported in 1901 show excellent increase.

Until 1899 the decline in the export of wheat had been very great, as will be seen by the following figures:—

Year.	Wheat exported. Bushels.	Year.	Wheat exported. Bushels.
1890	4,467,026	1898	10,090
1892	2,460,774	1899	2,901,676
1894	228,904	1900	2,867,069
1896	453,123	1901	2,301,092

The imports of wheat during 1898 exceeded the exports by upwards of 50,000 bushels, but in 1899, 1900, and 1901 the imports were practically nil, the small quantity introduced into the colony being for seeding purposes only.

In oats, the quantity exported in 1901 shows a large increase over that for the previous year:—

Year.	Export of Oats. Bushels.	Year.	Export of Oats. Bushels.
1891	4,052,414	1898	816,210
1892	3,830,444	1899	3,520,734
1894	1,963,288	1900	5,818,648
1896	2,247,053	1901	10,514,924

The acreages under cereals for the last three years have been:—

	1899-1900. Acres.	1900-1901. Acres.	1901-1902. Acres.
Land in wheat (for threshing) ..	269,749	206,465	163,462
" oats " ..	398,243	449,534	405,924
" barley " ..	48,003	30,831	26,514

Butter and Cheese exported.

The total quantity of butter and cheese exported in the past thirteen years, and the amount of either commodity sent to the United Kingdom is tabulated:—

Year.	Total Export of Butter	Butter Exported to the United Kingdom.	Total Export of Cheese.	Cheese Exported to the United Kingdom.
	Cwt.	Cwt.	Cwt.	Cwt.
1889	37,955	21,099	26,558	7,633
1890	34,816	26,579	40,451	31,043
1891	39,430	28,989	39,770	29,565
1892	53,930	41,509	41,493	30,000
1893	58,149	52,363	46,261	41,567
1894	60,771	58,845	55,655	54,540
1895	57,964	55,194	76,743	73,369
1896	71,353	60,092	71,372	58,692
1897	99,002	79,849	77,683	67,681
1898	96,801	80,814	68,711	41,412
1899	136,086	121,502	69,440	40,901
1900	172,583	165,871	102,849	81,908
1901	201,591	170,903	104,294	74,510

Of the butter exported in 1901, 170,903 cwt., valued at £740,980, were shipped to the United Kingdom; 3,826 cwt., value £18,415, to New South Wales; 14,488 cwt., value £64,973, to Victoria; 2,956 cwt., value £14,624, to Tasmania; 2,493 cwt., value £11,251, to Western Australia; 1,480 cwt., value £6,438, to South Australia; 482 cwt., value £1,928, to Fiji; 4,089 cwt., value £19,118, to Cape Colony and Natal; 854 cwt., value £4,573, to the South Seas; 7 cwt., value £38, to the United States of America, West Coast; 5 cwt., value £26, to Japan; and 8 cwt., valued at £40, to other countries.

Of the cheese exported, 74,510 cwt., valued at £168,159, were sent to the United Kingdom; 16,572 cwt., value £38,531, to New South Wales; 6,478 cwt., value £15,353, to Victoria; 4,796 cwt., value £11,503, to Western Australia; and 1,033 cwt., value £2,723, to the

other Australian States. While the quantity of butter exported in 1901, 201,591 cwt., shows an increase of 431 per cent. on the quantity exported in 1889, the increase in the export of cheese during the thirteen years has been at the rate of 293 per cent.—104,294 cwt. in 1901, as against 26,558 cwt. in 1889.

Phormium exported.

Phormium, of which 10,171 tons (excluding 342 tons of tow), valued at £195,728, were exported in 1901, shows a considerable decrease in the export, on comparing the figures for last year with those for 1900, when the quantity sent away was 15,906 tons. Outside of the question of prices, a large permanent development of this industry depends on the cultivation and careful selection of the plants used, and on improvements in the method of preparing the fibre.

Kauri-gum exported.

The export for 1901 (7,541 tons) is a substantial one. The value was £446,114, or an average of £59 3s. 2d. per ton. Full information as to the uses of this resin and the kauri-gum industry generally is given in a special article in Part III. of the Year-book for 1900. It embraces interesting matter from the report of the Royal Commission which investigated the whole subject in 1898.

Exports from different Ports, &c.

The following table gives the values of the exports from each port in New Zealand for the last two years, arranged in order of magnitude for 1901:—

	1901. £	1900. £
Lyttelton	2,489,470	2,522,912
Wellington	1,943,963	2,345,395
Auckland	1,922,792	2,068,361
Dunedin	1,463,237	1,478,071
Invercargill and Bluff	1,005,278	741,750
Timaru	849,986	932,949
Napier	806,110	770,159
New Plymouth	436,580	399,700
Greymouth	406,966	255,385
Poverty Bay	373,817	450,125
Wanganui	284,162	386,960
Oamaru	260,903	324,616
Kaipara	192,316	144,680
Wairau and Picton	127,705	141,039
Nelson	87,218	58,303
Waitara	68,794	104,221
Westport	61,965	45,897
Patea	49,190	37,717
Hokitika	34,818	25,475
Tauranga	..	646

The decrease of exports during 1901 was £14,834 at Dunedin, £33,442 at Lyttelton, £145,569 at Auckland, and £401,432 at Wellington.

DETAILS OF ALL EXPORTS, 1901.

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Acid—				£	£	£
Carbolic	lb.	..	20	..	1	1
Unenumerated ..	"	1,792	..	12	..	12
Alkali—						
Soda, caustic ..	cwt.	..	1	..	1	1
Unenumerated ..	"	..	84	..	44	44
Ambergris	lb.	5	..	100	..	100
Animals, living—						
Birds	No.	14	..	1	..	1
Dogs	"	20	..	66	..	66
Cattle (horned) ..	"	290	..	2,407	..	2,407
Horses	"	265	8	8,628	180	8,808
Pigs	"	75	..	130	..	130
Poultry	"	3,684	..	581	..	581
Sheep	"	3,668	..	4,705	..	4,705
Other kinds ..	"	..	2	..	10	10
Apparel and slops ..	..	..	..	7,227	1,813	9,040
Arms, ammunition, and explosives—						
Accoutrements ..	No.	..	..	..	66	66
Cartridges	"	15,800	11,500	103	53	156
Dynamite	lb.	..	175	..	15	15
Firearms	No.	..	38	..	227	227
Fuse	coils	..	8,160	..	272	272
Ordnance stores ..	..	..	..	139	346	485
Lithofracteur, &c. ..	lb.	..	150	..	11	11
Powder, blasting ..	"	..	150	..	6	6
Powder, sporting ..	"	..	1,525	..	148	148
Swords	No.	..	30	..	119	119
Unenumerated ..	..	..	..	..	60	60
Bacon and hams—						
Bacon	cwt.	2,589	..	7,319	..	7,319
Hams	"	2,911	..	10,413	..	10,413
Bags and sacks—						
Cornsacks	doz.	..	38,202	..	7,727	7,727
Unenumerated ..	"	679	8,376	149	1,248	1,397
Basketware and wickerware ..		..	..	23	2	25
Beer	galls.	19,449	7,340	2,176	1,675	3,851
Belting, leather ..	lb.	..	10	..	3	3
Beverages, non-alcoholic—						
Aerated and mineral waters, doz		2,200	22	350	8	358
Limejuice, unsweetened galls.		36	1,736	5	1,011	1,016
Unenumerated ..	"	..	..	3	..	3
Bicycles and tricycles ..	No.	5	226	68	1,854	1,922
Materials for ..	..	..	..	..	1,483	1,483
Biscuits—						
Fancy, &c. ..	lb.	3,365	..	71	..	71
Ship's plain ..	cwt.	4,793	..	3,536	..	3,536

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Blacking	..	..	..	..	180	180
Boats	No.	14	1	986	100	1,086
Bones	tons	10	..	42	..	42
Books, printed	..	..	..	2,470	2,457	4,927
Boots and shoes	doz. prs.	360	265	1,356	955	2,311
Bran	tons	4,400	..	13,851	..	13,851
Brass manufactures	..	..	..	2	8	10
Bricks, Fire	No.	3,300	..	29	..	29
Brushware and brooms	..	..	..	33	41	74
Butter	cwt.	201,591	..	882,406	..	882,406
Candles	lb.	100	411	2	12	14
Canes and rattans	..	..	..	21	..	21
Canvas	..	..	..	..	93	93
Carpeting and druggeting	..	..	..	..	746	746
Carriages, &c.—						
Carriages	No.	21	4	751	48	799
Carts, drays, and wagons	"	29	..	309	..	309
Perambulators	"	4	..	8	..	8
Materials for	..	..	..	11	51	62
Casks, empty	No.	1,031	915	353	655	1,008
Cement	barrels	47	200	20	132	152
Chaff	tons	28	..	92	..	92
Chains	cwt.	..	60	..	72	72
Cheese	"	104,294	..	238,685	..	238,685
Chinaware	..	..	..	..	202	202
Clocks	No.	..	19	..	12	12
Coals	tons	159,643	8,805	142,176	8,867	151,043
Cocoa and Chocolate	lb.	..	2,264	..	237	237
Coffee—						
Raw	"	..	6,698	..	174	174
Roasted	"	208	30	9	2	11
Confectionery	"	12,431	768	333	17	350
Chocolate in fancy packages		..	..	..	51	51
" in plain trade packages	lb.	..	1,272	..	80	80
Copper manufactures	..	..	..	5	32	37
Copra	tons	..	4	..	47	47
Cordage	cwt.	647	295	1,156	663	1,819
Hawsers	"	..	10	..	14	14
Iron and steel	"	..	62	..	119	119
Cork, cut	..	..	..	..	24	24
Cotton piece-goods	..	..	..	..	1,242	1,242
Shirtings	..	..	..	..	280	280
Waterproof material	..	..	..	..	22	22
Unenumerated	..	..	..	..	5,721	5,721
Cotton—						
Raw	lb.	..	2,867	..	51	51

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Cotton—*continued.*				£	£	£
Waste	cwt.	..	8	..	18	18
Wick	lb.	..	203	..	14	14
Cutlery	..	..	..	..	162	162
Doors	No.	466	..	399	..	399
Drapery		..	..	174	2,153	2,327
Lace and laces		..	..	..	78	78
Drugs, chemicals, and druggists' wares—						
Chemicals n.o.e.		..	..	304	130	434
Drugs, druggists' sundries, and apothecaries' wares ..		..	..	674	2,802	3,476
Sheep-dip		..	..	699	3,223	3,922
Disinfectants		..	..	14	33	47
Dyes		..	..	..	83	83
Earthenware		..	..	408	945	1,353
Eggs	doz.	2,805	..	145	..	145
Engine-packing ..	cwt.	8	22	47	163	210
Essences, flavouring ..	galls.	..	6	..	7	7
Essential oils	lb.	..	9	..	3	3
Fancy goods and toys		..	..	1,095	2,687	3,782
Fire hose and other appliances		..	..	4	..	4
Fish—						
Dried	wt.	192	68	293	143	436
Potted and preserved	lb.	248,698	74,698	6,700	2,073	8,773
Frozen	cwt.	8,607	..	10,858	..	10,858
Ova	No.	215,000	..	215	..	215
Flour	tons.	1,305	..	8,495	..	8,495
Foods, Animal—						
Unenumerated		..	..	103	..	103
Foods, farinaceous—						
Maizena and cornflour	lb.	..	2,200	..	20	20
Unenumerated		..	..	128	..	128
Fruits—						
Bottled and preserved .	doz.	60	121	19	43	62
Dried: Currants ..	lb.	..	23,741	..	362	362
Raisins	"	..	8,568	..	201	201
Unenumerated ..	"	..	14,456	..	342	342
Fresh	"	24,468	..	262	..	262
Pulp and partially preserved fruit	lb.	..	150	..	5	5
Fungus	cwt.	5,902	..	12,453	..	12,453
Furniture and upholstery ..		..	..	1,033	477	1,510
Kauri	"	..	1	..	3	3
Furniture, knife, and plate powder and polish		..	..	..	208	208

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Furs		..	..	6	..	6
Glass bottles, empty		..	..	..	70	70
Glassware		..	..	24	589	613
Glue and size	cwt.	191	..	94	..	94
Glycerine	"	792	..	1,170	..	1,170
Gold	oz.	455,558	6	1,753,784	26	1,753,810
Grain and pulse—						
Barley	bush.	119,779	..	13,241	..	13,241
Beans and peas	"	166,184	34	26,028	18	26,046
Maize	"	124,447	..	15,085	..	15,085
Oats	"	10,514,924	..	922,301	..	922,301
Rye	"	5,757	..	791	..	791
Wheat	"	2,301,092	..	276,111	..	276,111
Unenumerated	"	8	..	2	..	2
Ground, "	centals	..	15	..	18	18
Grease	cwt.	..	7	..	10	10
Grindery	..	..	..	..	6	6
Gum, kauri	tons	7,541	..	446,114	..	446,114
Haberdashery	..	..	..	..	709	709
Buttons	..	..	..	..	18	18
Hair	cwt.	799	..	3,120	..	3,120
Hardware, holloware, and ironmongery	..	..	..	490	2,778	3,268
Hats and caps	doz.	88	157	345	239	584
Hay and straw	tons	814	..	2,700	..	2,700
Hemp	"	..	10	..	440	440
Hides	No.	47,875	..	43,470	..	43,470
Honey	lb.	18,536	..	374	..	374
Hops	cwt.	4,298	648	17,189	134	17,323
Horns and hoofs	tons	73	..	1,024	..	1,024
Hosiery	—	..	..	795	531	1,326
Indiarubber and guttapercha goods		..	..	..	361	361
Ink, printing	lb.	..	36	..	4	4
Instruments, musical—						
Harmoniums and organs	No.	..	2	..	65	65
Pianofortes	"	..	21	..	726	726
Unenumerated	..	..	..	..	356	356
Instruments, scientific		..	..	..	776	776
" surgical and dental		..	..	..	92	92
" surveying		..	..	..	40	40
Iron and steel—						
Bar, bolt, and rod	tons	..	4	..	57	57
Bolts and nuts	cwt.	..	670	..	547	547
Galvanised manufactures		..	..	222	220	442
Hoop	tons	..	1	..	14	14

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Iron and steel—*continued.*			£	£	£
Pig .. .. tons	..	1	..	5	5
Pipes and fittings .. "	..	18	..	364	364
Sheet and plate .. "	..	1	..	13	13
Sheet, galvanis'd corrugated cwt	..	2,638	..	2,456	2,456
Staples and standards ton	..	1	..	17	17
Tanks, each 400 galls. No.	..	57	..	194	194
Tanks, each 200 galls. "	..	19	..	38	38
Wire, fencing, barbed tons	..	46	..	640	640
Wire netting	..	..	..	68	68
Jams, jellies, and preserves lb.	7,708	5,984	140	89	229
Jellies, concentrated .. "	..	1,733	..	55	55
Jewellery	..	..	36	200	236
Lamps and lanterns	..	..	10	112	122
Lard .. .. .. cwt.	650	..	1,377	..	1,377
Lead, pigs and bars .. tons	8	5	114	83	197
Leather .. .. cwt.	18,281	91	112,400	387	112,787
Leather manufactures, unenumerated	..	..	23	60	83
Lime .. .. bush.	2,480	..	113	..	113
Linen piece-goods	..	..	..	14	14
Linseed .. .. centals	1,140	..	770	..	770
Machinery and machines—					
Agricultural	..	..	4,244	9,259	13,503
Dairying	..	..	43	632	675
Dredging	..	..	840	2,639	3,479
Electric	..	..	3	689	692
Engines, gas and oil .. No.	..	3	..	140	140
Engines, boilers for .. No.	..	3	..	6,397	6,397
Flour-milling	..	..	4	175	179
Gas-making	..	..	..	558	558
Mining	..	..	134	615	749
Paper milling	..	..	..	165	165
Printing	..	..	..	418	418
Refrigerating	..	..	25	1,252	1,277
Sewing and knitting No.	2	180	9	675	684
Wood-working	..	..	..	116	116
Wool-pressing	..	..	409	..	409
Unenumerated	..	..	426	6,926	7,352
Materials for, and parts of ..	..	..	..	917	917
Malt .. .. .. bush.	141,324	..	32,252	..	32,252
Manures, unenumerated tons	230	..	1,061	..	1,061
Marble, dressed	..	..	108	..	108
Matches and vestas—					
Wax .. .. gross	..	2,767	..	575	575
Wooden .. .. "	..	5,771	..	494	494
Mats and matting	..	..	1,100	57	1,157
Meal, oaten .. .. centals	66,460	..	27,591	..	27,591

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Meats—						
Beef, fresh	cwt.	130	..	165	..	165
" frozen	"	221,211	..	258,951	..	258,951
" salted	"	7,357	..	8,463	..	8,463
Kidneys, frozen	"	5,279	..	9,581	..	9,581
Lamb, frozen	carcases	1,513,017	..	781,831	..	781,831
"	=cwt.	513,187				
Mutton (whole carcases), fresh	cwt.	8	..	11	..	11
Mutton, frozen (whole carcases)	carcases	1,806,671	..	1,027,668	..	1,027,668
	=cwt.	942,845				
Mutton (joints), frozen	"	43,092	..	48,410	..	48,410
Pork, frozen	"	3,341	..	6,535	..	6,535
Pork, salted	cwt.	924	..	1,762	..	1,762
Poultry, frozen	pairs	1,946	..	419	..	419
Veal, frozen	cwt.	107	..	173	..	173
Other kinds, frozen	"	1,189	..	1,881	..	1,881
Rabbits, frozen in the skins	No.	4,830,669	..	114,552	..	114,552
	=cwt.	124,353				
Hares, frozen in the skins	No.	42,202	..	3,261	..	3,261
	=cwt.	2,943				
Potted and preserved	"	35,258	2	87,683	23	87,706
Extract of meat	lb.	3,615	..	847	..	847
Unenumerated	cwt.	345	..	507	..	507
Medicines, patent and proprietary		..	..	438	293	731
Metal, Manufactures of		..	..	1,294	6,116	7,410
Typewriters	No.	..	2	..	17	17
Metal, old	cwt.	7,792	..	3,206	..	3,206
Milk, preserved	lb.	945,772	40,724	17,865	841	18,646
Millinery—						
Feathers, ornamental		..	..	55	..	55
Other kinds		..	..	32	338	370
Minerals—						
Antimony ore	tons	30	..	136	..	136
Copper ore	"	3	..	105	..	105
Fireclay	"	15	..	39	..	39
Manganese	"	208	..	614	..	614
Quartz, auriferous	"	390	..	6,663	..	6,663
Scheelite ore	"	2	..	83	..	83
Sulphur	"	143	..	360	..	360
Unenumerated	"	146	..	630	..	630
Nails	cwt.	..	528	..	467	467
Naphtha	galls.	..	1,413	..	130	130
Nuts—						
Almonds in shell	lb.	..	356	..	7	7
Unenumerated	"	78	..	2	..	2

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Oars	No.	..	6	..	2	2
Oil—						
Castor, bulk	galls.	..	345	..	42	42
Cod-liver	"	..	17	..	4	4
Colza	galls.	..	1,155	..	163	163
Cocoanut	"	250	..	26	..	26
Fish, penguin, and seal	"	1,171	..	77	..	77
Linseed	"	..	3,654	..	629	629
Mineral, kerosene	"	..	99,836	..	4,924	4,924
" other kinds	"	..	440	..	40	40
Neatsfoot	"	160	50	7	10	17
Olive, bulk	"	..	306	..	42	42
Whale	"	5,544	..	430	..	430
Unenumerated, bulk	"	154	6,261	37	597	634
" bottled,	doz. pts.	..	28	..	19	19
Oilmen's stores	..	..	..	248	1,474	1,722
Onions	cwt.	35,195	136	11,199	120	11,319
Oysters	doz.	383,680	..	3,201	..	3,201
Paints and colours—						
Ground in oil	cwt.	8	410	12	646	658
Mixed ready for use	"	..	335	..	1,455	1,455
Unenumerated	"	360	2	142	5	147
Paper bags	"	1,168	5	977	11	988
Paper—						
Printing	"	6	143	10	180	190
Wrapping	"	970	169	750	221	971
Pearl barley	"	70	..	33	..	33
Perfumery—						
Perfumed spirits	galls.	..	48	..	73	73
Unenumerated	..	..	..	..	16	16
Phormium	tons	10,171	..	195,728	..	195,728
Tow	"	342	..	1,140	..	1,140
Photographic goods	..	..	..	13	334	347
Pickles	galls.	..	107	..	19	19
Pictures, paintings, drawings, &c.	..	..	..	859	915	1,774
Picture-frames and mounts	..	..	..	9	6	15
Pitch	cwt.	507	6	112	7	119
Plants, shrubs, &c.	..	..	..	609	2	611
Plate and platedware	..	..	..	108	2,398	2,506
Pollard and sharps	tons	354	..	1,443	..	1,443
Potatoes	"	22,062	..	90,658	..	90,658
Printing materials	..	..	..	..	393	393
Provisions n.o.e.	..	..	..	7,909	854	8,763
Pumps	..	..	..	49	299	348
Rags	cwt.	960	..	842	..	842
Rice	"	..	1,350	..	1,044	1,044

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
				£	£	£
Rugs	..	..	..	4,681	70	4,751
Saccharine	oz.	..	280	..	14	14
Saddlery and harness	..	..	..	723	142	865
Salt	..	..	..	..	2	2
Sashes, window	pairs	1,291	..	894	..	894
Sauces	galls.	4	170	5	109	114
Sausage-skins	cwt.	9,133	98	39,498	585	40,083
Seeds—						
Grass and clover	"	52,562	20	69,937	45	69,982
Unenumerated	..	..	..	1,472	504	1,976
Ship-chandlery, n.o.e.	..	..	..	298	739	1,037
Silk piece-goods	..	..	..	..	492	492
Silver	oz.	571,134	..	65,258	..	65,258
Skins—						
Calf and other	No.	3,709	..	386	..	386
Rabbit	"	7,112,008	..	57,046	..	57,046
Sheep, with wool	"	238,833	..	30,039	..	30,039
Sheep, without wool	"	4,362,698	1,236	234,540	70	234,610
Soap—						
Common	cwt.	6,014	4	4,732	5	4,737
Unenumerated	lb.	..	4,153	..	201	201
Specie—						
Gold	..	..	..	..	7,679	7,679
Silver	..	..	..	..	3,875	3,875
Copper	..	..	..	..	60	60
Specimens, illustrative of natural science	..	..	..	971	4	975
Spices, unground	lb.	..	22,075	..	6,352	6,352
Spirits—						
Bitters, cordials, and liqueurs	galls.	..	18	..	16	16
Brandy	"	..	997	..	523	523
Geneva and gin	"	..	1,249	..	335	335
Methylated	"	..	260	..	25	25
Rum	"	..	383	..	78	78
Whisky	"	..	8,104	..	3,256	3,256
Sporges	lb.	..	100	..	35	35
Stationery	..	..	..	1,566	1,763	3,329
Stearine	lb.	12,742	..	246	..	246
Stone—						
Building	tons	701	..	721	..	721
Wrought	..	..	..	104	..	104
Greenstone	cwt.	201	..	1,535	..	1,535
Pumice	tons	938	..	2,814	..	2,814
Sugar—						
Refined	lb.	577,985	149,484	4,916	1,195	6,111
Molasses and treacle	"	2,900	..	14	..	14

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.	Quantities.		Value in Sterling.		
	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
			£	£	£
Tallow .. .. tons	15,599	..	319,824	..	319,824
Mutton stock, and oleomargarine .. tons	1,163	..	31,785	..	31,785
Oil .. .. tons	6	..	101	..	101
Tarpaulins and tents	..	..	6	60	66
Tanning materials—					
Bark .. .. tons	50	..	157	..	157
Tea .. .. .. lb.	..	97,214	..	4,185	4,185
Textile piece-goods, other than silk, cotton, linen, or woollen	..	..	..	997	997
Articles made up from, other than apparel	..	..	19	15	34
Timber—					
Logs, hewn .. sup. ft.	2,298,589	..	6,701	..	6,701
Sawn, undressed .. sup. ft.	65,869,783	..	266,718	..	266,718
" dressed .. "	3,653,997	..	21,280	..	21,280
Staves .. .. No.	67,800	..	432	..	432
Unenumerated	..	..	602	..	602
Tin, sheet .. .. cwt.	..	315	..	304	304
Tinware	..	..	245	132	377
Tobacco—					
Manufactured .. lb.	..	85,799	..	5,839	5,839
Cigars .. .. "	..	3,601	..	950	950
Cigarettes .. .. "	..	15,160	..	4,735	4,735
Tobacco-pipes and cases, &c. ..	..	..	..	92	92
Tools, unenumerated	..	..	70	723	793
Tramway plant	..	..	..	8	8
Turpentine .. .. gals.	..	8	..	1	1
Twine .. .. lb.	175	1,368	4	37	41
Binder .. .. cwt.	3,976	..	6,153	..	6,153
Nets and netting	..	..	..	6	6
Umbrellas and parasols ..	..	..	..	194	194
Varnish and gold size .. gals.	12	795	6	415	421
Vegetables	..	..	144	11	155
Watches .. .. No.	..	1,258	..	1,065	1,065
Wax—					
Beeswax .. .. cwt.	4	..	20	..	20
Parafin .. .. lb.	..	16,143	..	183	183
Whalebone .. .. cwt.	11	..	220	..	220
Wine—					
Australian .. .. gals.	..	645	..	206	206
Sparkling .. .. "	..	375	..	713	713
Other kinds .. "	80	998	40	590	630
Woodenware	..	..	1,098	958	2,056
Wool—					
Greasy .. .. lb.	114,878,593	166,698	2,643,491	4,464	2,647,955

DETAILS OF ALL EXPORTS, 1901—*continued.*

Articles exported.		Quantities.		Value in Sterling.		
		Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
Wool—*continued.*				£	£	£
Scoured	lb.	16,097,841	88,672	595,296	3,819	599,115
Sliped	"	14,165,715	..	404,419	..	404,419
Washed	lb.	1,677,930	..	55,897	..	55,897
Woolpacks	doz.	13	42	14	40	54
Woollen piece-goods	..	..	..	7,563	1,846	9,409
" blankets	doz. pairs	1,316	..	1,484	..	1,484
Yarns	..	..	..	31	35	66
Zinc, spelter	cwt.	403	13	364	16	380
Goods, miscellaneous—						
Manufactured	..	..	..	240	235	475
Unmanufactured	..	..	..	1,144	234	1,378
Parcels Post	..	..	..	16,154	..	16,154

Total Value of Trade.

The value of the total trade of New Zealand advanced from £13,431,804 in the year 1886 to £24,699,339 in 1901. But of these amounts some portion was coin. Excluding the specie, the figures for 1886 are £12,853,736, and for 1901, £24,223,226.

Year.	Total Trade.	Imports.	Exports.	Imports (excluding Specie).	Exports (excluding Specie).	Excess of Exports over Imports (excluding Specie).
	£	£	£	£	£	£
1886	13,431,804	6,759,013	6,672,791	6,319,223	6,534,513	215,290
1887	13,111,684	6,245,515	6,866,169	6,064,281	6,680,772	616,491
1888	13,709,225	5,941,900	7,767,325	5,430,050	7,403,206	1,972,156
1889	15,650,727	6,308,863	9,341,864	5,980,583	9,183,954	3,203,371
1890	16,072,245	6,260,525	9,811,720	5,928,895	9,569,316	3,640,421
1891	16,070,246	6,503,849	9,566,397	6,431,101	9,560,859	3,129,758
1892	16,477,907	6,943,056	9,534,851	6,742,544	9,490,920	2,748,376
1893	15,896,879	6,911,515	8,985,364	6,494,279	8,680,845	2,186,566
1894	16,019,067	6,788,020	9,231,047	5,990,177	9,221,550	3,231,373
1895	14,950,353	6,400,129	8,550,224	6,115,953	8,518,119	2,402,166
1896	16,458,425	7,137,320	9,321,105	7,035,379	9,299,907	2,264,528
1897	18,072,216	8,055,223	10,016,993	7,994,201	9,741,222	1,747,021
1898	18,748,555	8,230,600	10,517,955	8,211,409	10,449,838	2,238,429
1899	20,677,968	8,739,633	11,938,335	8,613,656	11,923,422	3,309,766
1900	23,892,257	10,646,096	13,246,161	10,207,326	13,223,258	3,015,932
1901	24,699,339	11,817,915	12,881,424	11,353,416	12,869,810	1,516,394

The trade for these years has been selected for exhibition in tabular form because during each of the series there was an excess of exports over imports, whereas previously the reverse obtained, and the colony was purchasing to an extent not covered by the value of the export. During the last sixteen years the excess of exports over imports, excluding money sent to and from the colony, amounted to a total sum of £37,438,038.

How different the foregoing conditions were from those previously obtaining will be seen by observing the balance of trade for the years 1881 to 1885 inclusive :—

Year.	Excess of Imports over Exports. £	Year.	Excess of Imports. over Exports. £
1881	1,406,898	1884	235,981
1882	1,948,485	1885	539,239
1883	761,938		

The gradually declining excess of imports turned in 1886 and 1887 to a small excess of exports, but subsequently the excess of exports was very great, and attained the sum of £3,640,421 in the year 1890.

Again considering the results for the sixteen years, 1886–1901, during which the balance was in favour of the exports, the external trade is shown for each year per head of population, the calculations being made exclusive as well as inclusive of specie, for the purpose of arriving at exact conclusions as regard trade in goods. In the year 1894 the imported money amounted to a sum of £797,843, making a substantial difference in the rates.

Excluding specie, the trade per head of population increased from £22 1s. 7d., in 1886, to £31 2s. 9d. in 1901: imports from £10 17s. 1d. to £14 11s. 11d., and exports from £11 4s. 6d. to £16 10s. 10d.

Year.	Including Specie.			Excluding Specie.		
	Total Trade per Head of Mean Population (excluding Maoris).	Imports per Head of Mean Population (excluding Maoris).	Exports per Head of Mean Population (excluding Maoris).	Total Trade per Head of Mean Population (excluding Maoris).	Imports per Head of Mean Population (excluding Maoris).	Exports per Head of Mean Population (excluding Maoris).
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1886	23 1 5	11 12 2	11 9 3	22 1 7	10 17 1	11 4 6
1887	21 19 8	10 9 5	11 10 3	21 7 5	10 3 4	11 4 1
1888	22 12 11	9 16 4	12 16 7	21 4 0	8 19 5	12 4 7
1889	25 9 11	10 5 6	15 4 5	24 15 9	9 15 6	15 0 3
1890	25 13 10	10 0 2	15 13 8	24 19 4	9 11 0	15 8 4
1891	25 10 4	10 6 6	15 3 10	25 7 10	10 4 3	15 3 7
1892	25 13 2	10 16 3	14 16 11	25 5 6	10 9 11	14 15 7
1893	24 0 9	10 9 0	13 11 9	22 18 11	9 16 5	13 2 6
1894	23 11 9	9 19 11	13 11 10	22 7 11	8 16 5	13 11 6
1895	21 11 10	9 4 10	12 7 0	21 2 8	8 16 8	12 6 0
1896	23 5 8	10 1 11	13 3 9	23 2 2	9 19 1	13 3 1
1897	25 0 11	11 3 3	13 17 8	24 11 7	11 1 7	13 10 0
1898	25 9 3	11 3 7	14 5 8	25 6 11	11 3 1	14 3 10
1899	27 11 5	11 13 1	15 18 4	27 7 8	11 9 8	15 18 0
1900	31 5 9	13 18 10	17 6 11	30 13 8	13 7 4	17 6 4
1901	31 15 0	15 3 10	16 11 2	31 2 9	14 11 11	16 10 10

The highest record of trade (excluding specie) was that for 1874, when the rate per head was £41 4s. 5d., the imports, in consequence of the large expenditure of borrowed money, amounting at that time to £24 17s. per head, against £14 11s. 11d. in 1901.

It has been customary to leave out the Maoris in estimating the sum per head, for their industries and necessities swell the volume of trade in comparatively so slight a measure that the amount per head of European population can be more truly ascertained by omitting them altogether.

Trade with different Countries, States, or Colonies.

The trade with the United Kingdom in 1901 amounted to £16,181,206, comprising 65·51 per cent. of the total.

With the Australian States, trade was done during 1901 to the value of £3,973,151; of which New South Wales claimed £2,246,091, and Victoria £1,396,264, made up as follows:—

EXPORTS FROM NEW ZEALAND.

	£
To New South Wales, 1901	1,024,065
„ Victoria, 1901	754,833

EXPORTS TO NEW ZEALAND.

	£
From New South Wales, 1901	1,222,026
„ Victoria, 1901	641,431

The latter amounts, in each case, represent the declared values of the imports into New Zealand from the States mentioned, not their export value as given in the New South Wales and Victorian returns.

Included in the exports to New Zealand from New South Wales is coal to the quantity of 149,004 tons, valued at £150,670.

The trade with Fiji and the other Pacific Islands (including Norfolk Island) decreased from £622,056 in 1900 to £605,516 in 1901.

Both imports from and exports to the United States in 1901 show an increase when compared with the previous year's figures.

Of the exports to the United States in 1901 the values of the principal New Zealand products were: Coal, £1,941; kauri-gum, £290,510; hides, £3,490; sheepskins, £6,641; rabbit-skins, £7,267; sausage-skins, £18,597; onions, £2,185; grass-seed, £6,740; and phormium, £20,424.

The following table shows the value of the total trade with the United States for each of the past ten years, 1892 to 1901 inclusive, during which period the trade has increased considerably.

TRADE WITH THE UNITED STATES.

Year.	Imports from		Exports to		Total Trade.
	Atlantic Ports.	Pacific Ports.	Atlantic Ports.	Pacific Ports.	
	£	£	£	£	£
1892	344,799	36,828	459,314	61,483	902,424
1893	345,743	33,635	430,842	65,706	875,926
1894	359,196	35,495	230,829	56,367	681,887
1895	351,823	42,410	298,536	18,103	710,872
1896	419,639	73,151	263,564	63,025	819,429
1897	521,939	106,105	252,013	123,083	1,003,140
1898	700,555	99,856	337,059	286,074	1,423,544
1899	687,906	87,403	387,614	45,885	1,208,808
1900	958,286	103,587	424,314	34,482	1,520,669
1901	1,174,745	240,515	332,175	186,904	1,934,339

The development in the decennial period is at the rate of 114·35 per cent., or an increase in value of £1,031,915.

The trade with India and Ceylon reached a total of £478,757, against £391,301 in 1900. The imports—tea, rice, castor-oil, wool-packs, &c.—were reckoned at £468,561, leaving a balance of only £10,196 for exports.

Trade of Australasia.

The following table gives the value of the imports and exports of what are now the Australian States and the Colony of New Zealand for the year 1900:—

State or Colony.	Total Value of		Excess of Exports over Imports.	Excess of Imports over Exports.
	Imports.	Exports.		
	£	£	£	£
Queensland	7,184,112	9,581,562	2,397,450	..
New South Wales ..	27,561,071	28,164,516	603,445	..
Victoria	18,301,811	17,422,552	..	879,259
South Australia	8,034,552	8,029,157	..	5,395
Ditto, Northern Territory	139,667	162,219	22,552	..
Western Australia ..	5,962,178	6,852,054	889,876	..
Tasmania	2,073,657	2,610,617	536,960	..
New Zealand	10,646,096	13,246,161	2,600,065	..

In the preceding table is given the total trade inwards and outwards of each State and colony, counting twice over the value of goods produced in one State or colony and carried thence into another, and reckoning the same goods three times where they are imported from without into one State or colony and re-exported thence in the same year into another. But, in order to form a just idea of the trade of Australasia as a whole, it is necessary to eliminate the inter-state traffic altogether. From the following table the value of imports and exports exchanged between the various States has accordingly been excluded :—

EXTERNAL TRADE OF AUSTRALASIA.

Year.	Total Trade.	Imports.	Exports.	Excess of Imports.	Excess of Exports.
	£	£	£	£	£
1885 ..	72,220,444	41,136,038	31,084,406	10,051,632	..
1890 ..	75,143,818	38,451,160	36,692,658	1,758,502	..
1891 ..	84,565,778	41,325,033	43,240,745	..	1,915,712
1892 ..	75,325,933	34,529,501	40,796,432	..	6,266,931
1893 ..	67,788,738	27,925,990	39,862,748	..	11,936,758
1894 ..	65,192,202	26,063,630	39,128,572	..	13,064,942
1895 ..	67,624,317	27,425,725	40,198,592	..	12,772,867
1896 ..	74,511,262	34,420,596	40,090,666	..	5,670,070
1897 ..	83,569,568	37,862,741	45,706,827	..	7,844,086
1898 ..	85,600,442	37,310,583	48,289,859	..	10,979,276
1899 ..	97,637,194	39,990,123	57,647,071	..	17,656,948
1900 ..	104,298,717	48,351,933	55,946,784	..	7,594,851

It will be observed that in the year 1885 the excess of imports over exports for Australasia amounted to no less a sum than £10,051,632, and that five years later the excess of imports had fallen to £1,758,502. In 1891 the position was completely reversed, the exports exceeding the imports by £1,915,712. This excess increased to £6,266,931 in the following year (1892), and to £13,064,942 in 1894, but decreased to £12,772,867 in 1895, to £5,670,070 in 1896. It was £7,844,086 in 1897, £10,979,276 in 1898, and in 1899 the excess of exports over imports amounted to £17,656,948. In 1900, however, there was a falling-off in the value exports, and the excess amounted to only £7,594,851.

The trade per head of the population in each of the States of the Australian Commonwealth and New Zealand in 1900 was :—

TRADE PER HEAD OF THE POPULATION IN 1900.

State or Colony.	Mean Population.	Imports.	Exports.	Total Trade.
		£ s. d.	£ s. d.	£ s. d.
Queensland	490,325	14 13 0	19 10 10	34 3 10
New South Wales	1,354,335	20 7 0	20 15 11	41 2 11
Victoria	1,191,500	15 7 2	14 12 5	29 19 7
South Australia	353,895	22 14 1	22 13 9	45 7 10
Ditto, Northern Territory ..	4,690	29 15 7	34 11 9	64 7 4
Western Australia	177,480	33 11 10	38 12 2	72 4 0
Tasmania	172,775	12 0 0	15 2 2	27 2 2
New Zealand	763,594	13 18 10	17 6 11	31 5 9

But the values of the exports of the Australian States, more especially New South Wales, Victoria, and South Australia, are largely increased by the inclusion of articles the produce or manufacture of other States, colonies, and countries.

The value of home productions or manufactures exported from each State or colony in 1900, and the rate per head of mean population, were as follow :—

State or Colony.	Home Produce exported.	Per Head of Population.
	£	£ s. d.
Queensland	9,354,689 ..	19 1 7
New South Wales	18,873,488 ..	13 18 9
Victoria	13,918,556 ..	11 13 8
South Australia	3,610,517 ..	10 4 1
Ditto, Northern Territory ..	160,466 ..	34 4 3
Western Australia	6,639,827 ..	37 8 3
Tasmania	2,595,309 ..	15 0 5
New Zealand	13,055,249 ..	1 11

The next table sets forth the amount of the trade of each of the above-named States and colony with the United Kingdom in 1900:—

State or Colony.	Imports from the United Kingdom.	Exports to the United Kingdom.	Total Trade with the United Kingdom.
	£	£	£
Queensland	3,100,706	3,271,656	6,372,362
New South Wales	9,923,117	8,273,272	18,196,389
Victoria	7,055,028	6,363,685	13,418,713
South Australia	2,397,684	2,325,519	4,723,203
Ditto, Northern Territory	32,403	24,760	57,163
Western Australia	2,225,746	4,268,419	6,494,165
Tasmania	628,663	688,600	1,317,263
New Zealand	6,504,484	10,259,342	16,763,826

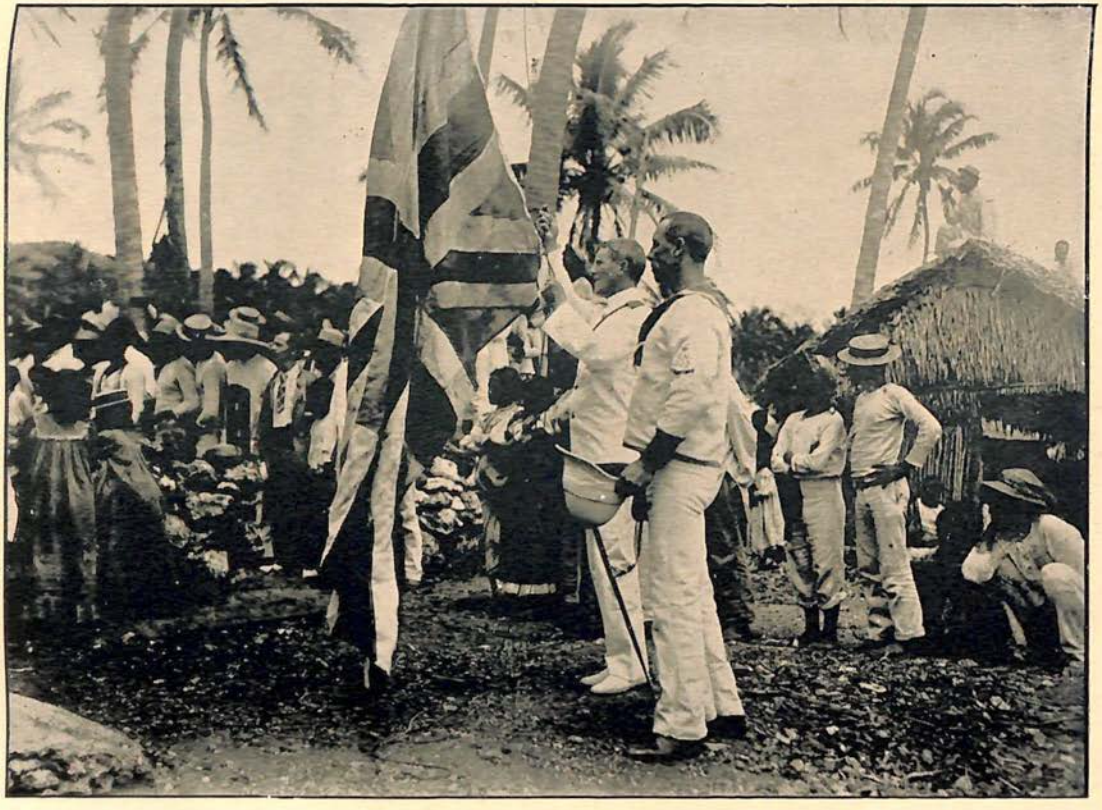
The statement appended shows the relative importance of Australasia as a market for the productions of the United Kingdom:—

EXPORTS OF HOME PRODUCTIONS FROM THE UNITED KINGDOM, IN 1900, TO—

	£
British India and Ceylon	31,948,628
Germany	27,999,712
Australasia	27,061,673
France	19,977,912
United States	19,780,831
Cape of Good Hope and Natal	12,757,875
Russia	11,001,300
Holland	10,987,401
Belgium	10,775,705
Japan	9,775,166
Italy	8,772,114
Sweden and Norway	8,719,434
Dominion of Canada	7,605,257
Argentine Republic	7,142,738

The exports to other countries did not amount to £7,000,000 in any one case.

Australasia as a whole, with a population of about 4,500,000, thus take the third place in importance as consumers of British produce, the exports thereto being nearly seven-eighths the value of similar exports to British India, with its 290,000,000 inhabitants.



Y.B. Annexation of Savage Island.

SECTION IV.—POPULATION.

THE population of New Zealand (exclusive of the Cook and certain other Islands which were proclaimed to be within the boundaries of the colony on and after the 11th June, 1901), as estimated for the 31st December, 1901, with the increase for the year, is shown below :—

	Persons.	Males.	Females.
Population as enumerated at the census of 31st March, 1901 (exclusive of Maoris)	772,719	405,992	366,727
Increase from 31st March to 31st December, 1901 :—			
By excess of births over deaths	9,580	4,493	5,087
Excess of arrivals over departures	5,358	3,738	1,620
Estimated population, exclusive of Maoris (also Cook and other Islands), on 31st December, 1901	787,657	414,223	373,434
Maori population, census, 1901	43,143	23,112	20,031
Total estimated population of Colony (excluding Cook and other Islands) on 31st December, 1901	830,800	437,335	393,465

It has been found impossible to obtain reliable information as to the population of the newly annexed Islands in time for this publication. A census is being taken of the principal islands, but the results are not yet available.

The number of the Chinese in New Zealand at the end of the year 1901 was estimated to be 2,846 persons, of whom 31 were females.

INCREASE OF POPULATION.

The increase for each quarter of the year 1901 was :—

First Quarter.

Increase from:	Total.	Males.	Females.
Excess of births over deaths	3,277	1,560	1,717
Excess of arrivals over departures	1,164	804	360
	4,441	2,364	2,077

Second Quarter.

Excess of births over deaths	3,317	1,522	1,795
Excess of departures over arrivals (decrease)..	−711	−568	−143
	2,606	95	1,652

Increase from:	Total.	Males.	Female
Third Quarter.			
Excess of births over deaths	2,895	1,366	1,529
Excess of arrivals over departures	1,902	1,597	305
	4,797	2,963	1,834
Fourth Quarter.			
Excess of births over deaths	3,368	1,605	1,763
Excess of arrivals over departures	4,167	2,709	1,458
	7,535	4,314	3,221
Year 1901.			
Excess of births over deaths	12,857	6,053	6,804
Excess of arrivals over departures	6,522	4,542	1,980
	19,379	10,595	8,784

The movement of population since 1885 is given next. Although the large increase in 1893 by excess of arrivals over departures was not maintained during the eight following years, the arrivals in the colony nevertheless exceeded the departures in each of these years, and the total excess of arrivals for the ten-year period 1892–1901 inclusive is found to be 35,678 persons, drawn from other States, colonies, or countries. The number may be somewhat greater than the actual fact, but probably not very much so. Reference to the possible source of error and its degree will be found further on.

Year.	Estimated Population on the 31st December.	Increase during the Year			Centesimal Increase on Population of Previous Year
		By Excess of Births over Deaths.	By Excess of Arrivals over Departures.*	Net Increase.	
1885	575,172	13,612	−2,744†	10,868	1·93
1886	589,386	13,164			
1887	603,361	12,998			
1888	607,380	13,194	−17,194†	58,886	10·24
1889	616,052	12,685			
1890	625,508	12,284			
1891	634,058	11,755			
1892	650,433	11,417	4,958	16,375	2·58
1893	672,265	11,420	10,412	21,832	3·36
1894	686,128	11,610	2,253	13,863	2·06
1895	698,706	11,683	895	12,578	1·83
1896	714,162	12,180	1,472	13,652	1·95
1897	729,056	12,142	2,752	14,894	2·09
1898	743,463	11,711	2,696	14,407	1·98
1899	756,505	11,155	1,887	13,042	1·75
1900	768,278	12,346	1,831	14,177	1·87
1901	787,657	12,857	6,522	19,379	2·52

*Corrected where necessary in accordance with census results. The amount of loss by departures in the period 1886-91, though correct in the aggregate, cannot be allocated with exactness to the respective years. †Loss.

Arrivals and Departures.

The number of persons who arrived in the colony in the year 1901 was 25,086, an increase of 7,012 on the number for the previous year. Of the arrivals in 1901, 22,666 persons were classified as adults, being above the age of twelve years, and 2,420 as children. The total number of males was 16,968 and of females 8,118. The arrivals from the United Kingdom numbered 2,563, and from Australia 19,923. Besides these, 334 persons came from Fiji, and 2,266 from the South Seas and other ports, including arrivals by mail-steamers from San Francisco.

Classified in respect of birthplace, it is found that 4,768 of the arrivals were persons born in Australasia, 19,381 in the United Kingdom, and 54 in other British possessions. Of 883 persons born in foreign countries who arrived during 1901, 169 were born in Germany, 104 in France, 269 in the United States, 32 in Denmark, and 36 in Sweden.

Among the arrivals in 1901 are noticed 146 "race-aliens," or persons of other than European descent. Particulars of birthplace and sex are as under:—

Birthplace.	M.	F.	Total.
Asia Minor	6	4	10
China	74	1	75
Syria	17	10	27
Pacific Islands	21	7	28
Fiji	1	0	1
India	1	2	3
Japan	1	0	1
New Zealand..	1	0	1
Total	122	24	146

The practice of nominating immigrants to be brought out partly at the Government expense has been discontinued since the 16th December, 1890, and there was no free immigration in the year 1901. Certain reductions are, however, arranged by the Agent-General with the shipping companies in fares for men with moderate means who intend to take up land and settle in the colony.

Only 75 Chinese (74 men and 1 woman) arrived in the colony during 1901, but 145 (140 men and 5 women) left, the departures thus exceeding the arrivals by 70.

The total departures in 1901, including 1,178 officers and men of the contingents for service in South Africa, were 18,564 persons, being 2,321 more than in 1900. Thus, the movement of population both to and from the colony is found to have been greater than in the previous year.

The departures from the colony by the Union Steamship Company's boats, as given through the Customs Department, are checked by special returns kindly furnished by the pursers of the steamers, and, where persons who did not book their passages have been

omitted, the necessary additions are made. The pursers' returns also serve to prevent the occasional omission of the full number of persons leaving by any one vessel, which sometimes had happened previous to the introduction of this check. Unless more passengers are at any time of great pressure taken away from New Zealand than can lawfully be carried, the returns of outgo of population should prove very fairly correct, and indeed the last census shows that the estimated population even after five years' interval was a very close approximation to the truth.

Of the departures in 1901, 17,123 persons were over twelve years of age, and 1,441 children. More than twice as many males left the colony as females, the numbers being 12,436 and 6138 respectively. The departures to the United Kingdom amounted to 1,152 persons, and those to Australia numbered 15,218. Besides these, 215 persons left for Fiji, and 1,979 for other ports (including passengers for San Francisco, and the troops for South Africa before mentioned).

In 1891 the colony lost population by excess of departures over arrivals, but in each of the years 1892 to 1901, inclusive, New Zealand has drawn to itself more population than it has parted with, notwithstanding the attractions of Australian and other gold-fields.

Census, 1901.

The population of the colony (exclusive of Maoris), as returned in the census schedules for the night of the 31st March, 1901, was 772,719 persons, of whom 2,857 were Chinese, and 2,407 half-castes living amongst and as Europeans.

A census of the Maori population was taken during February of 1901, when, according to preliminary returns made by the enumerators, the number of the Native race was found to be 43,143 persons, including 3,133 half-castes living as Maoris. 196 Maori women were returned as married to European husbands. The complete population (European and Maori) of the colony was therefore 815,862 persons, as exhibited in the following statement, specifying the numbers for each sex :—

	Persons.	Males.	Females.
Population (exclusive of persons of the aboriginal native race, of mixed European and Native blood, and Chinese)	767,455	401,979	365,476
Half-castes and persons of mixed race living as and among Europeans	2,407	1,188	1,219
Chinese	2,857	2,825	32
Aboriginal natives (including 196 Maori wives of Europeans)	40,010	21,418	18,592
Half-castes and persons of mixed race living among and as members of Maori tribes ..	3,133	1,694	1,439
Total population on 31st March, 1901	*815,862	429,104	386,758

* Not including 352 persons, officers and crews of two British men-of-war.

The total half-caste or mixed European and Native population was 5,540 persons. The number of half-castes living among Europeans increased since 1896 by 148, or at the rate of 6·55 per cent. In that year the number of Maori wives of Europeans was 229; in 1901 it was 196. The Chinese decreased from 3,711 at the time of the census of 1896 to 2,857 in March, 1901; or at the rate of 23·01 per cent., caused mainly by the excess of departures over arrivals.

The Maori population fell from 41,993 in 1891 to 39,854 in 1896, and increased to 43,143 in 1901, according to the returns.

The increase on the total European population between April, 1896, and 31st March, 1901, amounted to 69,359 persons, or a rate of 9·86 per cent. Between the census of 1891 and that of 1896 the numerical increase was 76,702 persons, or 12·24 per cent. The average annual increase in the period 1896–1901 was at the rate of 1·90 per cent.

The population of the principal divisions of the colony on 31st March, 1901, was—

	Persons.	Males.	Females.
North Island and adjacent islets (exclusive of Maoris)	390,571	206,606	183,965
Middle Island and adjacent islets (exclusive of Maoris)	381,661	199,103	182,558
Stewart Island	272	166	106
Chatham Islands (exclusive of Maoris) ..	207	112	95
Kermadec Islands	8	5	3
Total for the colony (exclusive of Maoris)	772,719	405,992	366,727

Proportion of the Sexes and Density of Population.

The gradual equalization of the numbers of the sexes and growing density of population and dwellings in the colony are alluded to in a further table.

Date of Enumeration.	Number of Females to 100 Males.	Number of Persons to a Square Mile.	Number of Persons to an Inhabited Dwelling.	Number of Inhabited Dwellings to a Square Mile.
December, 1861	62·16	0·944	4·42	0·214
February, 1871	70·52	2·456	4·48	0·548
April, 1881 ..	81·72	4·693	5·12	0·917
April, 1891 ..	88·26	6·024	5·06	1·191
March, 1901 ..	90·33	7·427	4·86	1·527

Increase of Population at Successive Censuses.

The increase of population of European descent at successive census periods has been :—

Date of Enumeration.	Population. Persons.	Numerical Increase. Persons.	Centesimal Increase.
December, 1858 ..	59,413		
		39,608	39·99
" 1861 ..	99,021		
		73,137	73·86
" 1864 ..	172,158		
		46,510	27·01
" 1867 ..	218,668		
		37,725	17·25

Date of Enumeration.	Population. Persons.	Numerical Increase. Persons.	Centesimal Increase.
February, 1871 ..	256,393		
		43,121	16·82
March, 1874 ..	299,514		
		114,898	38·36
" 1878 ..	414,412		
		75,521	18·22
April, 1881 ..	489,933		
		88,549	18·07
March, 1886 ..	578,482		
		48,176	8·33
April, 1891 ..	626,658		
		76,702	12·24
" 1896 ..	703,360		
		69,359	9·86
March, 1901 ..	772,719		

Populations of Provincial Districts.

These are stated as in March, 1901, and at the previous census. Taranaki stands first for rate of progress with an increase of 21·42 per cent. in five years, Wellington comes next with 16 per cent., Auckland third with 14·57, Marlborough and Nelson have increased from 6 to 7 per cent., Canterbury and Otago somewhat over 5 per cent.

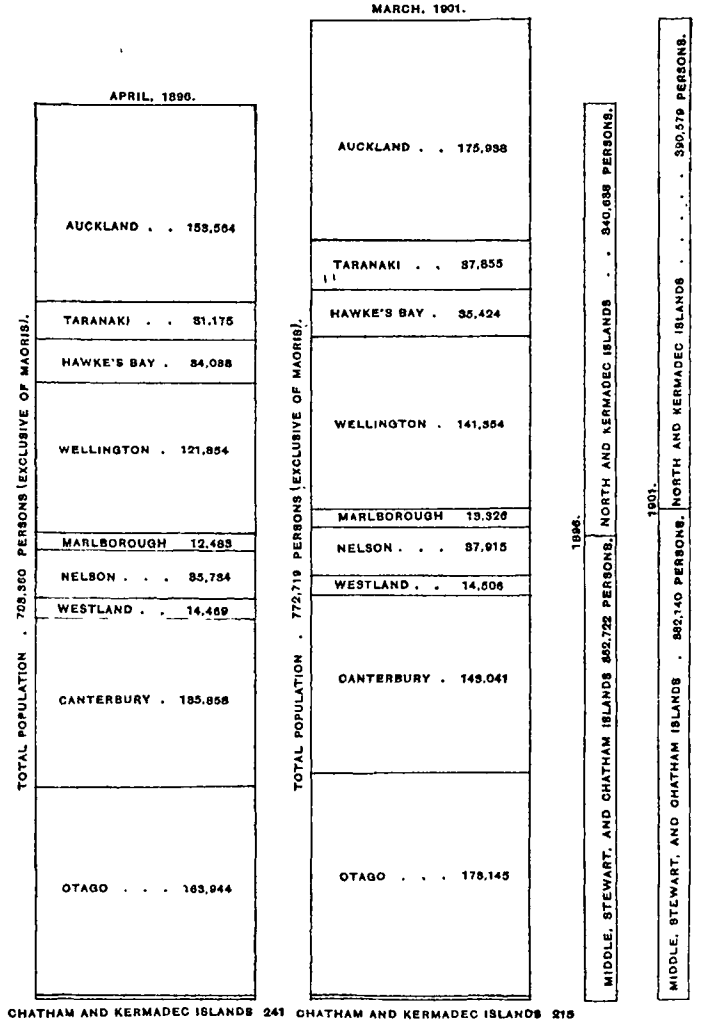
Provincial Districts.	Population, April, 1896. Persons.	Population, March, 1901. Persons.	Increase. Numerical. Persons.	Increase. Centesimal.
Auckland	153,564	175,938	22,374	14·57
Taranaki	31,175	37,855	6,680	21·42
Hawke's Bay ..	34,038	35,424	1,386	4·07
Wellington ..	121,854	141,354	19,500	16·00
Marlborough ..	12,483	13,326	843	6·75
Nelson	35,734	37,915	2,181	6·10
Westland	14,469	14,506	37	0·26
Canterbury ..	135,858	143,041	7,183	5·29
Otago	163,944	173,145	9,201	5·61
Chatham Islands	234	207	−27	−11·54
Kermadec Islands	7	8	1	14·28
Totals ..	703,360	772,719	69,359	9·86

(−) Decrease.

Population of Counties and Boroughs.

New Zealand is, by "The Counties Act, 1876," divided into counties and boroughs, excepting certain outlying islands, which are not within county boundaries. It is provided by the above-mentioned Act that boroughs shall not be included in counties. In March, 1901, the number of the counties was 86. Of these, the North Island had 52, with a population amounting altogether to 216,725 persons. The Middle Island had 33 counties, the population

Population (excluding Maoris) of the Provincial Districts and of the North and Middle Islands at the Censuses of 1896 and 1901.


APRIL, 1896.
AUCKLAND . . 153,564
TARANAKI . . 31,175
HAWKE'S BAY . 34,088
WELLINGTON . 121,854
MARLBOROUGH 12,493
NELSON . . . 33,784
WESTLAND . . 14,469
CANTERBURY . 135,858
OTAGO . . . 163,944
TOTAL POPULATION . 709,360 PERSONS (EXCLUSIVE OF MAORIS).
CHATHAM AND KERMADEC ISLANDS 241
MARCH, 1901.
AUCKLAND . . 175,938
TARANAKI . . 37,855
HAWKE'S BAY . 35,424
WELLINGTON . 141,364
MARLBOROUGH 13,326
NELSON . . . 37,915
WESTLAND . . 14,606
CANTERBURY . 149,041
OTAGO . . . 178,145
TOTAL POPULATION . 772,719 PERSONS (EXCLUSIVE OF MAORIS).
CHATHAM AND KERMADEC ISLANDS 215
1896.
NORTH AND KERMADEC ISLANDS . 340,638 PERSONS.
MIDDLE, STEWART, AND CHATHAM ISLANDS 352,722 PERSONS.
1901.
NORTH AND KERMADEC ISLANDS . . . . 390,579 PERSONS.
MIDDLE, STEWART, AND CHATHAM ISLANDS . 382,140 PERSONS.

(The Maori population, which is not dealt with in the diagrams, was returned in 1896 as 39,854 persons, and in 1901 as 43,143 persons.)

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being 200,618 persons. Stewart Island is a county in itself, and had a population of 253 persons, exclusive of persons on shipboard. The names and populations of the various counties in the colony, with their interior boroughs set opposite, were as under at the date of the enumeration:—

Counties.	Census, 1901.	Boroughs.	Census, 1901.
Mongonui	2,274		
On shipboard	18		
Whangaroa	927		
Hokianga	1,767		
On shipboard	22		
Bay of Islands	2,587		
On shipboard	26		
Hobson	4,813		
On shipboard	163		
Whangarei	6,380	Whangarei	1,429
On shipboard	31		
Otamatea	2,721		
Rodney	3,678		
On shipboard	17		
Waitemata	7,035	Birkenhead	1,057
On shipboard	27	Devonport	3,823
		On shipboard	1
Eden	19,314	Grey Lynn	4,110
		Auckland	34,213
		On shipboard	874
		Parnell	4,566
		Newmarket	2,060
		Onehunga	3,015
		On shipboard	47
Manukau	12,306		
Coromandel	4,169		
On shipboard	14		
Thames	5,043	Thames	4,009
On shipboard	8	On shipboard	11
Ohinemuri	9,978		
On shipboard	50		
Piako	2,436	Te Aroha	888
Waikato	3,183	Hamilton	1,253
Waipa	3,580	Cambridge	989
Raglan	1,697		
Kawhia	1,113		
On shipboard	1		
West Taupo	287		
East Taupo	256		
Rotorua	1,307		
Tauranga	1,720	Tauranga	945
		On shipboard	1
Whakatane	779		
Opotiki	1,488		
On shipboard	5		
Waiapu	711		
Cook	6,393	Gisborne	2,737
		On shipboard	58
Wairoa	1,773		
Hawke's Bay	6,833	Napier	8,774
		On shipboard	241
		Hastings	3,650
Clifton	2,535		
Taranaki	11,194	New Plymouth	4,405
On shipboard	92		
Stratford	5,081	Stratford	2,027
Hawera	8,347	Hawera	2,131
Patea	3,046	Patea	691
Waitotara	3,476	Wanganui	7,329
		On shipboard	5
Wanganui	4,018		
Rangitikei	7,570	Marton	1,101
Kiwitea	2,844		
Oroua	6,778	Feilding	2,298
		Palmerston North	6,534
Pohangina	1,536		
Manawatu	3,000	Foxton	1,211

Counties.	Census, 1901.	Boroughs.	Census, 1901.
Horowhenua	4,654		
Waipawa	9,495	Dannevirke	2,315
		Woodville	926
Patangata	2,376		
Pahiatua	3,600	Pahiatua	1,209
Akitio	1,048		
Castlepoint	457		
Eketahuna	2,332		
Mauriceville	1,127		
Masterton	3,123	Masterton	3,949
South Wairarapa	5,419	Carterton	1,205
		Greytown	1,122
Hutt	7,171	Wellington	43,638
		On shipboard	333
		Onslow	1,499
		Melrose	2,995
		Petone	3,780
		Lower Hutt	1,822
		Karori	1,212
Sounds	946		
On shipboard	2		
Marlborough	6,518	Blenheim	3,222
		Picton	875
		On shipboard	95
Kaikoura	1,765		
Collingwood	2,490		
On shipboard	23		
Waimea	7,833	Motueka	886
On shipboard	3	Richmond	543
		Nelson	7,010
		On shipboard	157
Buller	4,868	Westport	2,922
On shipboard	4	On shipboard	236
Inangahua	4,595		
Grey	4,971	Brunner	1,572
		Greymouth	3,748
		On shipboard	89
Westland	4,405	Hokitika	1,946
		On shipboard	5
		Kumara	1,121
		Ross	614
Amuri	1,142		
Cheviot	1,120		
Ashley	11,599	Kaiapoi	1,795
		Rangiora	1,768
Selwyn	30,787	Lyttelton	4,026
		On shipboard	321
		Christchurch	17,538
		New Brighton	1,008
		Sydenham	11,404
		St. Albans	6,607
		Linwood	6,737
		Woolston	2,532
		Sumner	844
Akaroa	3,069	Akaroa	559
		On shipboard	5
Ashburton	11,342	Ashburton	2,322
Geraldine	5,991	Temuka	1,465
Levels	5,496	Timaru	6,424
		On shipboard	62
Mackenzie	1,642		
Waimate	5,653	Waimate	1,359
Waitaki	9,086	Oamaru	4,836
		On shipboard	17
		Hampden	331
Waihemo	2,014	Palmerston South	738
Waikouaiti	4,082	Hawksbury	690
		Port Chalmers	2,056
		On shipboard	149
		North-east Valley	3,527
		Maori Hill	1,550
		West Harbour	1,465

Counties.	Census, 1901.	Boroughs.	Census, 1901.
Peninsula	2,561		
Taieri	7,179	Dunedin	24,879
		On shipboard	228
		Roslyn	4,632
		Mornington	4,008
		Caversham	5,266
		St. Kilda	1,700
		South Dunedin...	5,363
		Green Island	667
		Mosgiel	1,463
Bruce	4,762	Milton	1,241
		Kaitangata	1,463
Tuapeka	6,272	Lawrence	1,159
		Roxburgh	478
		Tapanui	350
Clutha	6,445	Balclutha	1,017
Maniototo	3,792	Naseby	505
Vincent	4,362	Cromwell	642
		Alexandra	818
Lake	2,535	Arrowtown	410
		Queenstown	690
Southland	22,583	Gore	2,354
		Mataura	867
		Winton	474
		Invercargill	6,215
		Invercargill North	925
		Invercargill South	1,874
		Invercargill East	939
		Avenal	355
		Gladstone	329
		Campbelltown	1,350
		On shipboard	303
Wallace	7,989	Riverton	815
Fiord	124		
Stewart Island	253		
On shipboard	19		

The total county population amounted to 417,596, or 54·04 per cent. of the total for the colony.* In counties are included all towns not constituted municipal boroughs; but, on the other hand, the people living in many of the boroughs can hardly be called town population. The population in boroughs was 350,202 persons, or 45·32 per cent. of the whole. For every 100 persons resident in counties in 1901 there were 84 residing in boroughs. In 1896 the counties had 391,735 persons, and the boroughs 307,294, or, in other words, for every 100 persons in counties, 78 were residents of the boroughs. Thus it will be seen that the proportion of the town to the county population was greater in 1901 than in 1896.

Chief Cities and Suburbs.

The Cities of Auckland, Christchurch, and Dunedin have considerable suburbs. The suburban population of Wellington is comparatively small. The following gives the names and populations of the several localities which may fairly be termed suburbs of the four principal cities:—

* For population of ridings, road districts, and localities, see Census volume, Part I.

SUBURBS OF AUCKLAND.

Boroughs—	Population, Census, 1901.
Birkenhead	1,057
Devonport	3,823
Newmarket	2,060
Grey Lynn (Newton) ..	4,110
Parnell	4,566
Road Districts—	
Arch-hill	1,671
Eden Terrace	2,011
Epsom	750
Mount Albert	2,085
Mount Eden	5,129
Mount Roskill	581
One-tree Hill	1,283
Point Chevalier ..	684
Remuera	2,186
Northcote Riding ..	767
Outlying portion of Parnell Riding, being land in the Domain with hospital on it	250
Total suburbs ..	33,013
Auckland City ..	34,213
Total Auckland and suburbs ..	67,226

SUBURBS OF WELLINGTON.

Boroughs—	
Onslow	1,499
Melrose	2,995
Karori	1,212
Total suburbs ..	5,706
Wellington City ..	43,638
Total Wellington and suburbs ..	49,344

SUBURBS OF CHRISTCHURCH.

Boroughs—	Population, Census, 1901.
Sydenham	11,404
St. Albans	6,607
Linwood	6,737
New Brighton	1,008
Woolston	2,532
Road Districts—	
Spreydon	1,457
Halswell (part)	156
Riccarton (part) ..	4,371
Avon (part)	2,843
Heathcote (part) ..	2,388
Total suburbs ..	39,503
Christchurch City ..	17,538
Total Christchurch and suburbs ..	57,041

In laying off the suburbs of Christchurch the boundaries of the Christchurch Health District have been mainly followed.

SUBURBS OF DUNEDIN.

Boroughs—	
Caversham	5,266
Maori Hill	1,550
Mornington	4,008
North-East Valley ..	3,527
Roslyn	4,632
St. Kilda	1,700
South Dunedin ..	5,363
West Harbour	1,465
Total suburbs ..	27,511
Dunedin City ..	24,879
Total Dunedin and suburbs ..	52,390

The increase of population for ten years at the four chief centres, with their suburbs, was :—

	Census, 1891.	Census, 1901.	Numerical Increase.	Increase per Cent.
Auckland and suburbs ..	51,287	67,226	15,939	31·08
Wellington and suburbs ..	34,190	49,344	15,154	44·32
Christchurch and suburbs ..	47,846	57,041	9,195	19·22
Dunedin and suburbs ..	45,869	52,390	6,521	14·22

Thus the two principal cities of the North Island are found to have progressed between 1891 and 1901 at a greater rate than those of the Middle Island, and Wellington in particular to have developed at more than three times the rate of Dunedin, and more than twice as fast as Christchurch.

While New South Wales and Victoria present what is termed by the statistician of the former colony "the disquieting spectacle of capital towns growing with wonderful rapidity, and embracing in their limits one-third of the population of the territory of which they are the centre," New Zealand is saved from this by the configuration of the country, which has resulted in the formation of four chief towns, besides others of secondary importance but nevertheless trading centres of considerable consequence.

Population of Town Districts and Small Centres.

Besides the boroughs, there were 35 town districts (including the special town district of Rotorua, constituted under "The Thermal-Springs Districts Act, 1881,") which are portions of the counties in which they are situated. One only of these, Hampstead, has more than 1,000 inhabitants. A list of these town districts is subjoined, with populations, as in 1901:—

Town Districts.	Population.	Town Districts.	Population.
Kamo	260	Taradale	763
Helensville	531	Ormondville	459
Papakura	286	Waipawa	669
Te Awamutu	355	Kaikora North	268
Kihikihi	222	Featherston	629
Ngaruawahia	245	Johnsonville	502
Rotorua*	914	Havelock	316
Opotiki	627	Amberley	417
Waitara (Raleigh)	765	Southbridge	396
Opunake	466	Hampstead	1,118
Inglewood	719	Tinwald	561
Normanby	370	Geraldine	868
Manaia	447	Allanton (formerly Grey) ..	227
Waverley	416	Outram	420
Lethbridge	230	Clinton	431
Bulls	501	Wyndham	417
Halcombe	336	Otautau	443
Clyde (Wairoa)	623		

In addition to the boroughs and town districts above referred to, the census results showed for 1901 throughout the colony no less than 683 places of the nature of townships, villages, or small centres without boundaries. It is impossible to say that the populations of these small centres are all strictly accurate, even for the census date, or given in such a way as to be fit for comparison one with another. In different cases more or less of surrounding country may have been considered as belonging to the centre, but there is at least at each place mentioned some sort of nucleus of population, if not a well-defined village or township. In making the statement the best has been done with a difficult matter, and

* Constituted under "The Thermal-Springs Districts Act, 1881."

the information is given as useful—in some cases, like that of Waihi and Reefton, important—even if open to objection here and there. The county in which each is situated is also given :—

	Population.
Abbotsford, Taieri	284
Adair, Levels	206
Adams's Flat, Bruce	76
Adamson's, Southland	69
Addison's Flat, Buller	208
Ahaura, Grey	219
Albany, Waitemata	87
Albert Town, Vincent	73
Alford Forest, Ashburton	221
Alfredton (and vicinity), Masterton	332
Allandale, Waihemo	115
Allenton, Ashburton	837
Alma, Waitaki	123
Alton, Patea	58
Anderson's Bay, Peninsula	567
Annat, Selwyn	105
Antonio's Flat, Inangahua	51
Aongatete, Tauranga	22
Aoroa, Hobson	373
Apiti, Pohangina	128
Aramoho, Waitotara	1,002
Arapohu, Hobson	189
Aratapu, Hobson	556
Arden, Taieri	87
Argyle, Southland	80
Arthurtown, Westland	74
Arundel, Geraldine	38
Ashley, Ashley	202
Ashhurst (and vicinity), Oroua	545
Athol, Southland	72
Avondale, Eden	826
Awahuri, Manawatu	42
Awakino, Kawhia	124
Awanui, Waiapu	51
Awhitu, Manukau	413
Bainham, Collingwood	126
Bald Hill Flat, Vincent	175
Ballance, Pahiatua	73
Bannockburn, Vincent	394
Barkly, Southland	63
Barry's Bay, Akaroa	154
Basting's, Tuapeka	28
Beaconsfield, Levels	122
Beck's, Maniototo	67
Belfast, Selwyn	613
Belfield Village Settlement, Geraldine	166
Belgrove, Waimea	156
Bendigo, Vincent	49
Bennett's, Ashley	77
Berwick, Taieri	87
Blackball, Grey	382
Black's Point, Inangahua	315
Blackwater, Inangahua	149
Blair Taieri, Taieri	35
Blue Spur, Westland	135
Bombay, Manukau	363
Bowentown, Tauranga	24
Brighton, Buller	19
Brighton, Taieri	119
Brightwater, Waimea	391
Broad Bay, Peninsula	156
Brockville, Taieri	23
Buckley, Cook	164
Buffalo (and vicinity), Coromandel	574
Bulltown, Ohinemuri	27
Bunnythorpe (and vicinity), Oroua	148
Burke's, Mackenzie	143
Burnside (and vicinity), Taieri	469
Burnveil and Lovell's Flat, Bruce	89
Burwood, Selwyn	140
Cabbage Bay, Coromandel	18
Callaghan's, Westland	79
Cambrian's, Maniototo	103
Cambridge West, Waipa	238
Cape Foulwind, Buller	182
Capleston, Inangahua	153
Cardrona, Lake	126
Castlecliffe, Waitotara	412
Castlepoint, Castlepoint	22
Centre Bush, Southland	83
Charleston, Buller	199
Charlton, Southland	108
Chatton, Southland	32
Cheltenham, Kiwitea	39
Chertsey, Ashburton	99
Clareville, Wairarapa South	93
Clarkville, Ashley	253
Clifden, Wallace	93
Clifton, Collingwood	60
Clyde, Vincent	374
Coalbrookdale, Buller	111
Coal Creek, Tuapeka	220
Coalgate (and vicinity), Selwyn	129
Cobden, Grey	423
Collingwood, Collingwood	16
Cooptown, Akaroa	96
Coromandel, Coromandel	663
Courtenay, Selwyn	161
Crofton, Rangitikei	148
Cromarty, Fiord	28
Crushington, Inangahua	152
Cullensville, Marlborough	84
Culverden, Amuri	87
Dacre, Southland	44
Dalefield, Wairarapa South	311
Danieltown, Wallace	68
Darfield, Selwyn	118
Dargaville, Hobson	505

	Population.
Deborah, Waitaki	34
Deborah Bay, Waikouaiti ..	163
Denlair, Wanganui	61
Denniston, Buller	793
Dillman's, Westland	168
Dipton, Southland	68
Doyleston, Selwyn	154
Dromore, Ashburton	78
Drummond, Wallace	248
Drury (and vicinity), Manukau	364
Dunback, Waihemo	165
Dunganville, Grey	90
Dunkeld, Tuapeka	105
Dunsandel, Selwyn	236
Duntroon, Waitaki	181
Durietown, Wanganui ..	355
Duvauchelle's Bay, Akaroa ..	145
East Clive, Hawke's Bay ..	141
East Dipton (and vicinity), Southland	139
Eastern Bush, Wallace ..	17
Eastown, Wanganui	238
East Winton, Southland ..	155
Edendale, Southland	180
Egmont, Taranaki	83
Eketahuna, Eketahuna ..	340
Ellesmere, Selwyn	103
Eltham, Hawera	400
Enfield, Waitaki	161
Epworth, Geraldine	105
Ettrick, Tuapeka	68
Evansdale, Waikouaiti ..	52
Eweburn, Maniototo	103
Fairdown, Buller	75
Fairfax (and vicinity), Bruce ..	183
Fairfield, Taieri	110
Fairlie, Mackenzie	597
Feldwick, Wallace	23
Fendalton, Selwyn	309
Fernhills, Southland	70
Fernside (and vicinity), Ashley	550
Ferntown, Collingwood ..	81
Flax Swamp, Waikouaiti ..	87
Flaxton, Ashley	17
Fordell, Wanganui	283
Fortrose, Southland	131
Frankton, Lake	265
Frasertown, Wairoa	175
Galatea, Whakatane	14
Garfield, Wallace	42
Georgetown, Waitaki	84
German Bay, Akaroa	155
Gibbston, Lake	158
Gibbstown, Collingwood ..	192
Gimmerburn, Maniototo ..	196
Glenavy, Waimate	98
Gleniti (and vicinity), Levels ..	99
Glenorchy, Lake	18
Glenore, Bruce	81
Glentunnel, Selwyn	153

	Population.
Golden Cross, Ohinemuri ..	383
Goldsborough, Westland ..	146
Gordon Special Settlement, Piako	89
Governor's Bay, Akaroa ..	169
Grahamstown, Whangarei ..	60
Granity Creek, Buller ..	366
Grassmere, Southland ..	137
Greatford (and vicinity), Rangitikei	132
Greendale, Selwyn	340
Green Island Bush, Taieri ..	229
Greenlane, Eden	191
Greenpark, Selwyn	336
Greerton, Tauranga	99
Grovetown, Marlborough ..	352
Gumtown, Coromandel ..	107
Hakaru, Otamatea	44
Hakataramea (and vicinity), Waimate	264
Hamilton, Maniototo	27
Hampden, Waipawa	261
Hamua, Pahiatua	202
Hanmer Springs, Amuri ..	154
Harwood, Southland	81
Hastings, Thames	112
Hastwell, Mauriceville ..	220
Hatter's, or Nelson Creek, Grey	156
Hawarahu, Manukau	62
Havelock, Hawke's Bay ..	374
Hawarden, Ashley	66
Hawea, Vincent	39
Hawthorndale, Southland ..	42
Heddon Bush, Wallace ..	146
Henderson (and vicinity), Waitemata	357
Henley, Taieri	122
Herbert, Waitaki	282
Herbertville, Patangata ..	129
Heriot (and vicinity), Tuapeka ..	206
Highcliffe, Peninsula	222
Hikurangi, Whangarei ..	495
Hikutaia, Thames	152
Hillgrove, Waitaki	87
Hindon, Taieri	192
Hirstfield, Wallace	52
Hobsonville, Waitemata ..	194
Hodgkinson, Wallace	48
Hohoura, Mangonui	272
Holmesdale, Wallace	19
Horndon, Selwyn	188
Hororata, Selwyn	269
Howick (and vicinity), Manukau	617
Huia, Taranaki	54
Huiakama, Stratford	45
Huirangi, Taranaki	40
Hukerenui, Whangarei ..	110
Huntervillo, Rangitikei ..	576
Huntly, Waikato	622
Hurunui, Ashley	58
Hyde, Maniototo	164

	Population.
Ida Valley, Vincent	203
Inangahua Junction, Inangahua	98
Inglewood, Southland ..	46
Islington, Selwyn	289
Jackeytown, Oroua	85
Josephville, Southland ..	19
Kaeo (and vicinity), Whangaroa	324
Kaihu, Hobson	105
Kai Iwi, Waitotara	111
Kaikohe, Bay of Islands ..	115
Kaikoura, Kaikoura	516
Kaitaia, Mangonui	106
Kaitawa, Pahiatua	95
Kakanui (North), Waitaki ..	126
Kakanui (South), Waitaki ..	181
Kakaramea, Patea	117
Kanieri, Westland	149
Kapanga, Coromandel ..	328
Karaka, Cook	110
Karangahake, Ohinemuri ..	205
Katu, Hokianga	48
Kaukapakapa, Waitemata ..	543
Kauribohore, Whangarei ..	191
Kawakawa, Bay of Islands ..	263
Kawarau Gorge, Vincent ..	40
Kawhia, Kawhia	158
Keel, Ashley	166
Kennedy Bay, Coromandel ..	89
Kennington, Southland ..	56
Kereru (and vicinity), Horowhenua	275
Kerrytown, Levels	156
Killinchy, Selwyn	77
Kimberley, Selwyn	149
Kimbolton, Kiwitea	219
Kingsdown, Levels	114
Kingston, Lake	61
Kirwee (and vicinity), Selwyn ..	333
Kohinui, Pahiatua	53
Kohukohu, Hokianga	128
Kokonga, Maniototo	45
Komaka, Pohangina	57
Konini (vicinity), Pahiatua ..	247
Kopu, Thames	166
Koru, Taranaki	93
Kuaotunu, Coromandel ..	375
Kukunui (Brownstown), Eketahuna	136
Kumeroa, Waipawa	148
Kuri Bush, Taieri	150
Kuriwao, Clutha	94
Kurow, Waitaki	264
Kyeburn Diggings, Maniototo ..	190
Kyeburn, Upper, Maniototo ..	78
Lake Hayes, Lake	194
Larrikins, Westland	90
Lauder, Maniototo	43
Leedstown (and vicinity), Rangitikei	269
Leeston, Selwyn	257
Leithfield, Ashley	298
Lepperton, Taranaki	36
Levin, Horowhenua	1,147
Lichfield, Piako	41
Lime Hills, Southland ..	96
Lincoln (and vicinity), Selwyn ..	464
Lintley, Southland	54
Linton, Oroua	61
Little Akaloa, Akaroa	233
Livingstone, Waitaki	123
Longburn (and vicinity), Oroua	358
Long Bush, Southland ..	215
Longford, Inangahua	25
Longridge, Southland	112
Lowburn, Vincent	133
Lowther, Southland	15
Luggate, Vincent	51
Lumsden, Southland	275
Lumsden Extension, Southland	162
Lyell, Buller	90
Macandrew, Southland ..	30
Macetown, Lake	113
Mackaytown (and vicinity), Ohinemuri	1,085
Mackenzie, Cheviot	113
Macrae's (and vicinity), Waihemo	59
Maheno, Waitaki	226
Maitland, Southland	22
Makakahi, Pahiatua	42
Makarewa, Southland	370
Maketu, Tauranga	41
Makikihi, Waimate	112
Makomako (and vicinity), Pahiatua	154
Makuri, Pahiatua	85
Makutoku, Waipawa	271
Manakau, Horowhenua ..	184
Mandeville, Southland ..	129
Mangahao, Pahiatua	43
Mangamahoe, Mauriceville ..	131
Mangamaire, Pahiatua ..	96
Mangaonoho, Rangitikei ..	342
Mangare (and vicinity), Manukau	702
Mangatainoko, Pahiatua ..	171
Mangawai, Otamatea	193
Mangaweka (and vicinity), Rangitikei	956
Mangonui, Mangonui	249
Mansfordtown, Waikouaiti ..	377
Manurewa, Manukau	70
Manutahi, Patea	72
Maori Gully, Grey	7
Mapourika, Westland	20
Marima, Pahiatua	50
Marsden, Grey	37
Marshalltown, Kiwitea ..	66
Martinborough (and vicinity), Wairarapa South	551
Matakanui, Vincent	219
Matakana, Rodney	172

	Population.
Matakohe, Otamatea	338
Matamau, Waipawa	292
Mauku (and vicinity), Manukau	306
Mauriceville, Mauriceville ..	203
Maxwelltown, Waitotara ..	207
Mayfield, Waitemata	112
Meanee, Hawke's Bay ..	63
Medbury Village Settlement, Ashley	130
Menzies' Ferry, Southland ..	91
Mercer (and vicinity), Manukau	208
Merryjigs, Inangahua	68
Merton, Waikouaiti	170
Methven, Ashburton	296
Middlemarch, Taieri	226
Midhirst, Stratford	330
Milford, Geraldine	157
Millwood, Southland	75
Mohaka, Wairoa	119
Mokau, Kawhia	70
Mokihinui, Buller	29
Mokoreta, Southland	47
Morley, Wallace	70
Morrinsville, Piako	300
Mosstown, Waitotara	225
Motu, Cook	64
Moutere, Waimea	129
Murawai, Cook	23
Murchison, Inangahua ..	104
Neavesville, Thames	25
Netherton, Ohinemuri ..	155
Nevis, Vincent	168
Newman, Eketahuna	178
Newport, Hobson	129
Ngahauranga, Hutt	168
Ngahere, Grey	123
Ngaire, Stratford	81
Ngakawau, Buller	12
Ngapara, Waitaki	201
Niagara, Southland	87
Nightcaps, Wallace	373
Nikau (and vicinity), Pahiatua	114
Nokomai, Southland	113
Nolan, Hawera	129
Normanby, Levels	130
Norsewood (and vicinity), Waipawa	914
Northcote, Waitemata ..	767
North Taieri (and vicinity), Taieri	602
No Town, Grey	66
Nukumaru, Waitotara ..	61
Oaklands, Peninsula	76
Oakura, Taranaki	44
Oban, Stewart Island	80
Ohaeawai, Bay of Islands ..	112
Ohau (and vicinity), Horowhenua	309
Ohaupo, Waipa	250
Ohinemutu, Rotorua	107
Ohingaiti (and vicinity), Rangitikei	464
Ohiwa, Opotiki	19
Ohoka, Ashley	426
Okaiawa, Hawera	94
Okaihau and Omapere, Bay of Islands	273
Okain's Bay, Akaroa	278
Okarito, Westland	66
Okato, Taranaki	92
Okoroire, Piako	211
Omahu, Thames	268
Omata, Taranaki	41
Ongaonga, Waipawa	107
Ophir, Vincent	132
Opitonui, Coromandel ..	277
Opua, Bay of Islands	62
Opuriao, Whakatane	161
Oraka, Wallace	185
Orari, Geraldine	118
Ormond (and vicinity), Cook ..	482
Oropi, Tauranga	53
Orwell Creek, Grey	59
Otahuhu, Manukau	1,211
Otaki (and vicinity), Horowhenua	629
Otakia, Taieri	102
Otara, Opotiki	150
Otara, Southland	135
Otawa, Manukau	53
Otekaike, Waitaki	54
Otiake, Waitaki	118
Otorohanga, Kawhia	150
Owaka, Clutha	635
Owen Junction, Inangahua ..	28
Owharoa (and vicinity), Ohinemuri	485
Oxford East, Ashley	311
Oxford West, Ashley	176
Paeroa, Ohinemuri	1,504
Pahia, Wallace	151
Pahautanui, Hutt	104
Paikakariki, Hutt	160
Pakawau, Collingwood ..	39
Pakington, Manukau	69
Panmure, Eden	259
Papanui, Selwyn	270
Paparata, Manukau	180
Papatoitoi (and vicinity), Manukau	219
Parangahau, Akitio	55
Paraparaumu, Hutt	198
Parkville, Eketahuna	202
Patumahoe, Manukau ..	148
Patutahi (and vicinity), Cook ..	228
Peel (and vicinity), Geraldine ..	170
Pembroke, Lake	130
Pigeon Bay, Akaroa	157
Piiama, Hawera	27
Pine Hill, Waikouaiti	41
Pipiriki (and vicinity), Wanganui	233
Piritarau, Waiapu	164
Pirongia East, Waipa	89

	Population.
Pleasant Point, Levels	749
Pleasant Valley, Waikouaiti	50
Pleckville, Eketahuna	71
Plimmerton, Hutt	92
Pohangina, Pohangina	167
Pokeno (and vicinity), Manukau	460
Porirua, Hutt	80
Porangahau, Patangata	187
Poro-o-torao, Clifton	235
Port Albert, Rodney	241
Port Awanui, Waiapu	51
Port Moeraki, Waitaki	197
Port Waikato, Raglan	14
Portobello Town, Peninsula	50
Puangi, Clifton	40
Puhoi, Rodney	39
Pukekohe East, Manukau	331
Pukekohe, Manukau	611
Pukerau, Southland	129
Pungarehu, Taranaki	143
Puni, Manukau	212
Purakanui, Waikouaiti	31
Puriri, Thames	220
Putara, Eketahuna	29
Putiki, Wanganui	145
Queensbury, Vincent	54
Raetihi (and vicinity), Wanganui	433
Raglan, Raglan	114
Rahotu, Taranaki	80
Rakaia, Ashburton	439
Rakaia Village Settlement, Ashburton	187
Rakaunui, Akitio	46
Rama Rama, Manukau	204
Rangiriri, Waikato	76
Rangiwahia (Pemberton), Kiwitea	88
Rata Settlement, Rangitikei	210
Raupo, Otamatea	108
Rawene, Hokianga	103
Redcliffe, Waimate	86
Redwood Town, Marlborough	143
Reefton, Inangahua	1,722
Reidston, Waitaki	80
Renwicktown, Marlborough	292
Reynolds, Waikouaiti	35
Riccarton, Selwyn	313
Richmond, Selwyn	252
Richmond Grove, Southland	101
Rikiorangi, Hutt	138
Rimu, Westland	148
Rimu, Southland	56
Riversdale, Southland	312
Riwaka, Waimea	687
Rockville, Collingwood	102
Rolleston, Selwyn	85
Rongotea, Manawatu	229
Rotherham, Amuri	146
Rotorua, Rotorua*	759
Round Hill Diggings, Wallace	178
Ruapekapeka, Bay of Islands	119
Runciman, Manukau	30
Russell, Bay of Islands	246
Sandymount, Peninsula	177
Sanson, Manawatu	210
Sawyer's Bay, Waikouaiti	305
Scarborough, Levels	54
Scarborough (and vicinity), Pahiatua	198
Scotsburn, Geraldine	24
Sefton (and vicinity), Ashley	620
Selwyn, Selwyn	33
Serpentine, Maniototo	44
Shaftesbury, Piako	85
Shannon, Horowhenua	272
Shawfield, Waikouaiti	125
Sheffield, Selwyn	153
Shiel Hill, Peninsula	86
Shirley, Selwyn	165
Shortland, Thames	1,217
Silverstream, Mackenzie	98
Skippers, Lake	92
Southbrook (and vicinity), Ashley	1,070
Spring Creek (and vicinity), Marlborough	264
Springfield, Selwyn	247
Spring Grove, Waimea	348
Springston, Selwyn	644
Stafford, Westland	116
St. Andrew's, Waimate	127
St. Bathan's, Maniototo	231
St. Helier's Bay, Eden	24
St. Kilda, Buller	16
Stirling (and vicinity), Bruce	232
Stoke, Waimea	511
Strathmore, Stratford	54
Studholme Junction, Waimate	138
Swannanoa, Ashley	100
Swanson, Waitemata	147
Taheke, Hokianga	21
Taiaroa Heads, Peninsula	45
Taihape (and vicinity), Rangitikei	461
Taipa, Mangonui	20
Tairua, Thames	360
Taitapu, Selwyn	268
Takapau (and vicinity), Waipawa	431
Tamaki West (and vicinity), Eden	351
Tarras, Vincent	158
Tatararaki, Hobson	348
Taueru, Masterton	139
Tauherenikau, Wairarapa South	118
Taupaki, Waitemata	131
Taupiri, Waikato	136
Taupo, East Taupo	79
Tavistock, Waimate	28
Taylorville, Wanganui	33
Te Anui, Wallace	16
Te Aroha West, Piako	158
Te Aute, Waipawa	120

* Special Town District under "The Thermal Springs District Act, 1881."

	Population.
Teddington, Akaroa	69
Te Horo, Horowhenua ..	98
Te Kopuru, Hobson	325
Te Kuiti, Kawhia	134
Templeton, Selwyn	67
Teoneroa, Fiord	37
Te Puke (and vicinity), Tauranga	477
Te Teko, Whakatane	20
Thornbury, Wallace	262
Thorpe, Waimea	100
Tikorangi, Clifton	29
Tiniroto, Cook	62
Tinui, Castlepoint	295
Tokaanu, East Taupo ..	55
Toka-Toka, Otamatea.. ..	96
Toko, Stratford	240
Tokomaru, Horowhenua ..	116
Tokomaru (and vicinity), Waiapu	196
Totara, Whangaroa	155
Totara, Waitaki	176
Totara East, Grey	188
Tuakau, Manukau	418
Tuamarina, Marlborough ..	44
Tumai, Waikouaiti	22
Tutaekara, Pahiatua	58
Turua, Thames	244
Upper Hutt, Hutt	309
Urenui, Clifton	165
Utiku, Rangitikei	297
Vauxhall, Peninsula	52
Vogeltown, Taranaki	176
Waddington, Selwyn	134
Wade, Waitemata	229
Waianiwa, Southland ..	52
Waiau, Amuri	153
Waiau, Manukau	63
Waihi, Ohinemuri	3,813
Waihola, Bruce	190
Waihou (and vicinity), Piako ..	410
Waikaia, Southland	230
Waikaka, Southland	112
Waikanae, Horowhenua ..	149
Waikare, Ashley	417
Waikawa, Southland	44
Waikiwi, Southland	152
Waikoikoi, Clutha	13
Waimangaroa, Buller ..	151
Waima, Hokianga	43
Waimata, Cook	117
Waimate, Bay of Islands ..	105
Waimatuku, Wallace	166
Waimea West, Waimea ..	221
Wainuiomata, Hutt	48
Waiomio, Bay of Islands ..	74
Waiorongomai, Piako	154
Waiotahi, Opotiki	117
Waipahi, Clutha	130
Waipara, Southland	17
Waipara, Ashley	141
Waipipi, Manukau	135
Waipiro (and vicinity), Waiapu	118
Waipori, Tuapeka	211
Waipu Central (and vicinity), Whangarei..	461
Waipukurau, Waipawa ..	565
Wairaki, East Taupo	25
Wairio (and vicinity), Wallace..	271
Waitahuna, Tuapeka	301
Waitati (and vicinity), Waikouaiti	272
Waitekauri, Ohinemuri ..	441
Waitotara, Patea	173
Waituna, Kiwitea	53
Waiwera, Waitemata	59
Waiwera, Clutha	167
Waiuku, Manukau	205
Wakefield, Waimea	479
Wallacetown, Southland ..	160
Wallingford, Patangata ..	90
Wangaehu, Wanganui ..	19
Wangamomona, Stratford ..	23
Wanstead, Patangata ..	111
Waotu, West Taupo	71
Warepa, Clutha	217
Warkworth, Rodney	572
Washdyke, Levels	217
Waterford, Tauranga	50
Waterton (and vicinity), Ashburton	197
Wayne's, Waihemo	24
Weber, Patangata	159
Weedon's, Selwyn	106
Wereroa, Horowhenua ..	58
West Clive, Hawke's Bay ..	333
West Melton, Selwyn	280
Weston, Waitaki	237
Whakataki, Castlepoint ..	50
Whakarewarewa, Rotorua ..	48
Whakatane, Whakatane ..	239
Whangapoua, Coromandel ..	61
Whangaroa, Whangaroa ..	100
Whare Flat, Taieri	93
Whenuakiti, Coromandel ..	40
Whitecliffs, Selwyn	98
Whitmore, Oroua	80
Whitstone, Waitaki	51
Wickliffe Bay, Peninsula ..	30
Wimbledon, Patangata ..	90
Winchester, Geraldine ..	170
Windsor, Waitaki	130
Woodbury, Geraldine	111
Woodend, Ashley	365
Woodend, Southland	115
Woodfield, Southland	34
Woodlands, Southland ..	207
Woodside, Taieri	222
Woodside, Wairarapa South ..	23
Woodstock, Westland.. ..	189
Woodstock Village Settlement, Ashley	50
Wrey's Bush, Wallace ..	289
Yaldhurst, Selwyn	143

Population of Adjacent Islands.

The names and populations of the islands adjacent to and included in the colony were, in March, 1901:—

Islands.	Total.	M.	F.
Mokohinau Lighthouse	8	5	3
Tiritiri Lighthouse	5	2	
Motuhora	7	4	3
Great Barrier	510	357	153
Little Barrier	11	1	10
Kawau	21	7	14
Ponui	27	11	16
Ponui Lighthouse	2	1	1
Ruthe's	15	9	6
Pakatoa	5	3	2
Pahiki	4	3	1
Waiheke	162	81	81
Week's (Puketutu)	6	3	3
Motuihi	11	9	2
Bean Rock Lighthouse	1	1	...
Motutapu	11	7	4
Rakino	4	2	2
Rangitoto	3	3	..
Brown's	8	4	4
Mercury	14	5	9
Cuvier and Lighthouse	7	4	3
Slipper	3	3	..
Motiti	2	2	..
East Island Lighthouse	6	5	1
Portland and Lighthouse	21	13	8
Kapiti	3	1	2
Somes and Lighthouse	7	5	2
Stephen's	18	9	9
Brothers Lighthouse	3	3	..
Quarantine	2	1	1
Ruapuke	9	9	..
Dog Island and Lighthouse	16	9	7
Centre and Lighthouse	9	5	4
Resolution	2	2	..
Chatham Islands	207	112	95
Kermadec Islands	8	5	3
Total	1,158	706	452

The islands which are not included within the boundaries of the counties had in 1901 a population of 1,158 persons (exclusive of Maoris), against 950 in 1896. Only three of the islands had a population over 100 persons at last census. The population of the Great Barrier increased since 1896 from 307 to 510 persons; Waiheke showed a decrease from 166 to 162 persons. Europeans at the Chatham Islands decreased from 234 to 207.

POPULATION OF AUSTRALASIA.

The growth of population in Australasia over a period of forty years is shown in a comparative table. The total for March, 1901, being 4,557,323 persons, is greater than the population of Ireland or Scotland for 1900, and one-seventh part of the population of England and Wales for that year. Australasia has now twice the population of Denmark, over one-third more than Switzerland, and nearly that of the Netherlands.

	Persons. 1860.	Persons. 1870.	Persons. 1880.	Persons. 1890.	Census, March, 1901.
New South Wales ..	348,546	498,659	747,950	1,121,860	1,362,200
Victoria	537,847	726,599	860,067	1,133,266	1,201,506
Queensland ..	28,056	115,567	226,077	392,965	503,266
South Australia ..	124,112	183,797	267,573	319,414	362,604
Western Australia ..	15,227	25,084	29,019	46,290	182,553
Tasmania	87,775	100,765	114,762	145,290	172,475
New Zealand ..	79,711	248,400	484,864	625,508	772,719
Australasia ..	1,221,274	1,898,871	2,730,312	3,784,593	4,557,323

SECTION V.—RELIGION.

Of the various religious denominations, the Church of England has most adherents in the colony. They numbered 314,024 at the date of the census; or, including 1,239 Protestants not more specifically described, 315,263 persons, being 40·84 out of every 100 of population. The Presbyterians numbered 176,503 persons, or 22·87 per cent., and the Roman Catholics came next with 108,960, or, including Catholics not further defined, 109,822, which gives a proportion of 14·23 per cent. The Methodists were 83,802, or 10·86 in every 100 persons. Of other denominations, the Baptists, of whom there were 16,035, and the Salvation Army, 7,999 persons, were those returning more than 1 per cent. of the total population, the proportions being 2·08 and 1·04 respectively. 18,295 persons objected to state their religious belief, or 2·38 in every 100.

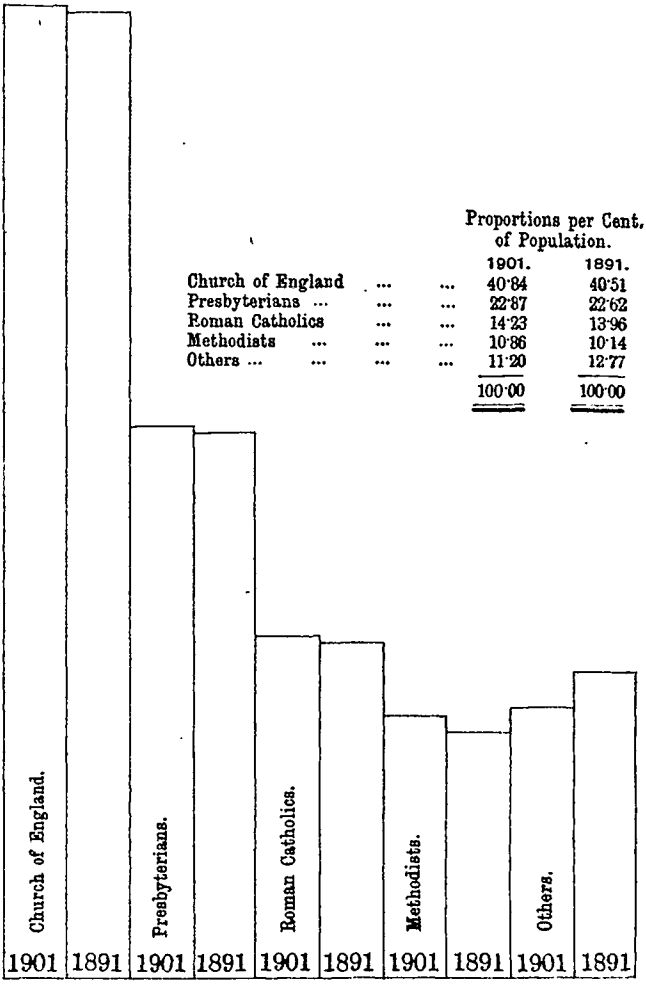
The numbers and percentages for five censuses are given in tabular form, so as to allow of the degree of increase relatively to the population being observed :—

Denominations.	Number of Adherents in 1901.	Proportion per Cent. of Population.				
		1881.	1886.	1891.	1896.	1901.
Church of England and Protestants (undefined) ..	315,263	41·50	40·17	40·51	40·27	40 84
Presbyterians	176,503	23·08	22·59	22·62	22·78	22·87
Methodists	83,802	9·53	9·55	10·14	10·44	10·86
Baptists	16,035	2·34	2·48	2 37	2·28	2·08
Congregationalists	6,699	1·37	1·35	1·07	0·97	0 87
Lutherans	4,833	1·18	1·02	0 90	0·79	0·63
Salvation Army	7,999	..	0 91	1·50	1·50	1·04
Society of Friends	313	0·05	0 05	0·05	0·05	0·04
Unitarians	468	0·10	0·08	0·05	0 05	0·06
Other Protestants	16,877	1·26	1·55	1·82	2·16	2·19
Roman Catholics and Catholics (undefined)	109,822	14·08	13·94	13·96	14·07	14·23
Greek Church	189	0·01	0·01	0·01	0·02	0 02
Hebrews	1,611	0·31	0·27	0·23	0·22	0·21
Buddhists, Confucians ..	2,432	1·01	0·77	0·63	0·48	0·30
Other Denominations ..	1,347	0·11	0·10	0·12	0·16	0·17
No Denomination	8,240	0·89	1·05	1·32	1·22	1·07
No Religion	1,109	0·06	0·17	0·25	0·27	0·14
Unspecified	882	0 27	0·50	*	*	*
Object to state	18,295	2·85	3·44	2·45	2·27	2·38
	772,719	100·00	100 00	100·00	100·00	100·00

Here the proportion belonging to the Church of England is shown to have been 40 per cent. since 1886, but a little higher previously. Presbyterians have been 22 or 23 per cent. of the whole

* "Unspecified" not taken into account.

RELIGIONS OF THE PEOPLE.—Proportion per cent. of the Principal Denominations to the Population in 1891 and 1901.



	Proportions per Cent. of Population.	
	1901.	1891.
Church of England	40·84	40·51
Presbyterians	22·87	22·62
Roman Catholics	14·23	13·96
Methodists	10·86	10·14
Others	11·20	12·77
	100·00	100·00

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at each enumeration, but the proportion of Methodists rose steadily from 9·53 to 10·86. Congregationalists declined from 1·37 per cent. in 1881 to 0·87 per cent. in 1901. Lutherans are fewer in proportion to the total at each succeeding census, while the Salvation Army increased from 0·91 in 1886 to 1·50 in 1891 and 1896, decreasing again to 1·04 in 1901.

Roman Catholics and Catholics undefined formed practically 14 per cent. of the people at each of the census years. The proportion of Buddhists and Confucians diminishes with the number of Chinese in the colony. In 1886 the percentage of persons objecting to state their religion was 3·44, which fell to 2·45 in 1891, and, further, to 2·27 in 1896, rising slightly in 1901 to 2·38 per cent.

A full statement of the particulars for all denominations, as at the census of 1896 and 1901, is given, with the numerical and centesimal increase or decrease in each case. Amongst 1,093 given as "Other Protestants," 247 described themselves as "Church of God," 201 as "Christians of no Denomination," 145 as "Independents," 41 as "Our Father's Church," 33 as "Conditional Immortalists," 31 as "Gospel Mission," 29 as "Forward Movement," 26 as "Central Mission," and the remainder variously in very small numbers.

NUMBERS FOR EACH DENOMINATION, AND INCREASE.

Religious Denominations.	Census, 1901.			Census, 1896.	Increase or Decrease.	
	Persons.	Males.	Females.	Persons.	Numerical.	Centesimal
Total population ..	772,719	405,992	366,727	703,360	69,359	9·86
Total for specified religions	771,837	405,372	366,465	702,238	69,599	9·91
Episcopalians—						
Church of England, and Episcopalians not otherwise defined ..	314,024	165,100	148,924	281,166	32,858	11·69
Protestants, undescribed	1,239	742	497	1,643	−404	−24·59
Presbyterians	176,503	92,406	84,097	159,952	16,551	10·35
Methodists—						
Wesleyan Methodists ..	71,034	35,362	35,672	63,373	7,661	12·09
Primitive Methodists ..	10,143	5,046	5,097	7,041	3,102	44·06
Methodists (undefined)	2,396	1,183	1,213	2,893	−497	−17·18
Others	229	122	107	60	169	..
Baptists	16,035	7,574	8,461	16,037	−2	−0·01
Congregationalists ..	6,699	3,154	3,545	6,777	−78	−1·15
Lutherans, German Protestants	4,833	3,063	1,770	5,538	−705	−12·73
Unitarians	468	283	185	375	93	24·80
Society of Friends ..	313	195	118	321	−8	−2·49
Church of Christ (Christian Disciples, Disciples of Christ, Disciples) ..	6,105	2,860	3,245	5,859	246	4·20
Brethren (Christian Brethren, Exclusive Brethren, Open Brethren, Plymouth Brethren) ..	7,484	3,450	4,034	5,035	2,449	48·64

NOTE.—The minus sign (−) indicates decrease.

NUMBERS FOR EACH DENOMINATION, AND INCREASE—*continued.*

Religious Denominations.	Census, 1901.			Census, 1896.	Increase or Decrease.	
	Persons.	Males.	Females.	Persons.	Numerical.	Centesimal.
Believers in Christ ..	31	14	17	77	−46	−59·74
Evangelists (Evangelical Union, Evangelical Church, Evangelical Christians, Evangelical Brethren)	21	16	5	33	−12	−36·36
Nonconformists ..	61	36	25	95	−34	−35·79
Salvation Army ..	7,999	3,807	4,192	10,532	−2,533	−24·05
Christadelphians ..	989	497	492	952	37	3·89
Swedenborgians (New Church, New Jerusalem Church)	159	72	87	191	−32	−16·75
Seventh-day Adventists ..	864	357	507	776	88	11·34
Students of Truth ..	33	17	16	340	−307	−90·29
Dissenters	3	3	..	65	−62	−95·38
Christian Israelites, Israelites	34	19	15	61	−27	−44·26
Other Protestants ..	1,093	577	516	1,710	−617	..
Roman Catholics ..	108,960	56,490	52,470	97,525	11,435	11·73
Catholics (undefined) ..	862	480	382	1,279	−417	−32·60
Greek Church	189	134	55	116	73	62·93
Catholic Apostolic ..	326	140	186	247	79	31·98
Other Sects—						
Hebrews	1,611	826	785	1,549	62	4·01
Mormons, Latter-day Saints	272	145	127	289	−17	−5·88
Spiritualists	499	240	259	376	123	32·71
Buddhists, Confucians, &c.	2,432	2,413	19	3,391	−959	−28·28
Others	250	162	88	187	63	..
No Denomination—						
Freethinkers	2,856	2,245	611	3,983	−1,127	−28·30
Agnostics	552	413	139	562	−10	−1·78
Deists, Theists ..	59	51	8	46	13	28·26
No Denomination ..	4,740	3,006	1,734	3,898	842	21·60
Doubtful	33	14	19	46	−13	−28·26
No Religion—						
No Religion	1,012	752	260	1,605	−593	−36·95
Atheists	80	67	13	117	−37	−31·62
Secularists	17	12	5	153	−136	−88·88
Object to state	18,295	11,827	6,468	15,967	2,328	14·58
Unspecified	882	620	262	1,122	−240	−21·39

NOTE.—The minus sign (−) indicates decrease.

It will be seen by the table that, of the larger Protestant denominations, the Wesleyan Methodists increased since 1896 from 63,373 to 71,034 persons, being at the rate of 12·09 per cent.; Presbyterians from 159,952 to 176,503, or 10·35 per cent.; and the Church of England from 281,166 to 314,024, or 11·69 per cent. Baptists returned practically the same number of adherents as in 1896. The Salvation Army, which increased its numbers by 1,149 persons between 1891 and 1896, being at the rate of 12·25 per cent., now show a decrease of 2,533 persons, or 24·05 per cent. The numbers of the Brethren show an increase of 48·64 per cent., and

the Seventh-day Adventists 11·34 per cent. increase ; but the Congregationalists have decreased 1·15 per cent. and Lutherans 12·73 per cent. Of the Protestant bodies having but few members in the colony, the Unitarians increased from 375 to 468, and the Society of Friends fell in number from 321 to 313.

Roman Catholics added 11,435 to their number, being 11·73 per cent., a rate similar to that obtained by the Church of England.

Hebrews were 1,549 in 1896, and 1,611 in 1901, a difference of 62. Spiritualists progressed considerably, their numbers rising from 376 to 499, an increase of 32·71 per cent. Freethinkers decreased from 3,983 to 2,856, or 28·30 per cent., which is worthy of remark when contrasted with the increase of 14·01 per cent. gained between 1886 and 1891 ; and Agnostics, who numbered 562 in 1896, now show a decrease of 10.

Proportions of the Sexes in the Various Denominations.

While the number of males is found to be greater than that of the females in the Church of England, Presbyterian, Roman Catholic, and sundry other religious denominations, the contrary result is found in the following cases, the proportion per cent. being—

	Males.	Females.
Wesleyan Methodists	49·78	50·22
Primitive Methodists	49·75	50·25
Baptists	47·23	52·77
Congregationalist	47·08	52·92
Church of Christ	46·85	53·15
Brethren	46·10	53·90
Salvation Army	48·84	51·16
Seventh-day Adventists	41·32	58 68

Amongst those persons grouped as of " No Denomination," " No Religion," and " Object to state," the proportion of females is very small, as will be seen by the next figures :—

	Males.	Females.
No Denomination—		
Freethinkers	78·60	21·40
Agnostics	74·82	25·18
Deists, Theists	86·44	13·56
No Denomination	63·42	36·58
No Religion—		
No Religion	74·31	25·69
Atheists	83·75	16·25
Secularists	70·59	29·41
Object to state	64·70	35·30

Sunday-schools.

The attendance at Sunday-schools, with remarks thereon, is given in Section IX., under the heading of " Education."

SECTION VI.—BIRTHPLACE.

Of the population, exclusive of Maoris (772,719 persons), all but 442 were described as to birthplace on the census schedules. The number of the New Zealand-born was 516,106, and of those born in Australia, Tasmania, and Fiji, 27,215, making 543,321 born in Australasia. The New-Zealand-born increase in proportion to the whole with every successive census. In 1886, 51·89 per cent. of the population were born in this colony; in 1891, the percentage was 58·61; in 1896 it was 62·85; and in 1901 it had reached 66·83, adding to which 3·52 per cent. born in Australia, &c., makes 70·35 out of every 100 persons living in New Zealand who were born in Australasia.

205,111 persons, or 26·56 per cent. of the population, were born in the United Kingdom, which number was divided as under:—

Born in United Kingdom—	Number of Persons.	Per Cent. of Population.
England	111,964	14·50
Wales	1,765	0·22
Scotland	47,858	6·20
Ireland	43,524	5·64
	205,111	26·56

Besides these, there were 4,049 persons born in other British possessions.

Summarising these results, it is found that 752,481 of the population, or 97·43 per cent., were born in the British possessions, made up as follows:—

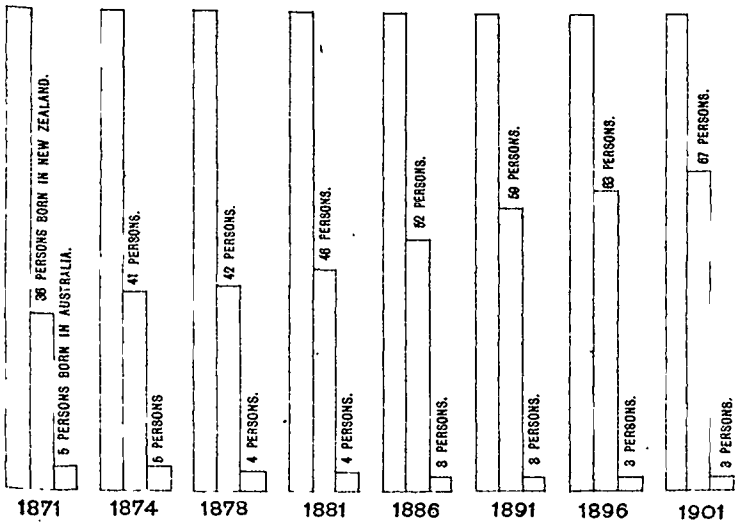
Born in	Number of Persons.	Per Cent. of Population.
Australasia	543,321	70·35
United Kingdom	205,111	26·56
Other British Possessions	4,049	0·52
	752,481	97·43

There remained 18,593 persons born in foreign countries, or 2·41 per cent. of population; 1,203 born at sea; and 442 whose birthplaces were not specified.

The New Zealand-born population increased from 441,661 in 1896 to 516,106, or at the rate of 16·86 per cent., between 1896 and 1901, the numerical increase being 74,445 persons. The numbers born in the United Kingdom decreased altogether by 10,050 in the quinquennium.

Proportions of New Zealand and Australian Born in every 100 Persons living in New Zealand at Successive Censuses.

(EXPLANATION OF DIAGRAM.—Out of every 100 persons living in New Zealand at the census of 1901, sixty-seven were found to have been born in this colony and three persons to have been born in Australia.)



CENSUS YEAR.	TOTAL POPULATION OF NEW ZEALAND.	NEW-ZEALAND-BORN (INCLUDED IN PREVIOUS COLUMN).	AUSTRALIAN-BORN (INCLUDED IN FIRST COLUMN).
1871	256,393	93,474	12,426
1874	299,514	122,635	13,601
1878	414,412	174,126	16,091
1881	489,933	223,404	17,277
1886	578,482	300,190	17,245
1891	626,658	366,716	15,943
1896	703,360	441,661	21,631
1901	772,719	516,106	26,991

New-Zealand-born, shown thus :
Australian-born, "

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Born in	Persons. 1901.	Decrease since 1896. Numerical.	Decrease since 1896. Centesimal.
England	111,964	4,577	3·93
Wales	1,765	383	17·83
Scotland	47,858	2,577	5·11
Ireland	43,524	2,513	5·46

The numbers of Australian-born are found to have increased for each State. The number born in New South Wales, living in New Zealand, was 4,536 in the year 1896, and 6,430 in 1901, an increase of 41·75 per cent. There were 10,471 persons in this colony in 1896 born in Victoria, and 12,583 at last census, or an increase of 20·17 per cent. in five years. New Zealand also gained on the number born in Queensland, there being 1,271 in 1901, against 930 in 1896, or 36·36 per cent. increase. And similarly on the South Australian, Western Australian, and Tasmanian-born.

The number of the people born in foreign countries was found to be 18,593, being 2·41 per cent. of the whole. Besides these, 1,203 persons were returned as born at sea. The greatest number of foreigners were Germans (4,217). Next come persons born in China (2,902). Swedes and Norwegians numbered 2,827. There were 2,120 persons from Denmark and her possesions, and 1,874 persons from Austria-Hungary.

The numbers of those born in France, Germany, the Netherlands, Belgium, Denmark, Poland, Switzerland, Spain, Portugal, Greece, China, Africa, and North (so described) America all decreased since 1896.

The following table gives full details, and exhibits under the head of "Allegiance" the number of British and foreign subjects in New Zealand:—

NUMBERS OF EACH NATIONALITY, AND INCREASE, 1896 TO 1901.

Where born.	Census, 1901. Persons.	Census, 1901. Males.	Census, 1901. Females.	Census, 1896. Persons.	Increase or Decrease. Numerical.	Increase or Decrease. Centesimal.
Total population ..	772,719	405,992	366,727	703,360	69,359	9·86
Total for specified birthplaces	772,277	405,690	366,587	702,756	69,521	9·89
British:—						
United Kingdom,—						
England	111,964	64,216	47,748	116,541	−4,577	−3·93
Wales	1,765	1,076	689	2,148	−383	−17·83
Scotland	47,858	27,516	20,342	50,435	−2,577	−5·11
Ireland	43,524	23,430	20,094	46,037	−2,513	−5·46
Australasia and Fiji,—						
New Zealand ..	516,106	257,828	258,278	441,661	74,445	16·86
Queensland	1,271	645	626	930	341	36·36
New South Wales ..	6,430	3,395	3,035	4,536	1,894	41·75
Victoria	12,583	6,530	6,053	10,471	2,112	20·17
South Australia ..	1,575	807	768	1,222	353	28·88

NOTE.—The minus sign (−) indicates decrease.

NUMBERS OF EACH NATIONALITY, AND INCREASE, 1896 TO 1901—*continued.*

Where born.	Census, 1901.			Census, 1896.	Increase or Decrease.	
	Persons.	Males.	Females.	Persons.	Numerical.	Centesimal.
Australia and Fiji—*contd.*						
Western Australia ..	190	103	87	112	78	69·64
Tasmania	3,720	2,084	1,636	3,160	560	17·72
Australia (State not named)	1,222	669	553	1,200	22	1·83
Fiji	224	98	126	151	73	48·34
Other British Possessions,—						
Gibraltar	48	24	24	49	−1	−2·04
Malta	55	37	18	71	−16	−22·54
India and Ceylon ..	1,286	722	564	1,341	−55	−4·1
Cape of Good Hope ..	141	72	69	246	−105	−42·68
St. Helena	43	25	18	50	−7	−14·00
British North America (Canada)	1,544	947	597	1,412	132	9·35
West Indies ..	208	144	64	247	−39	−15·79
Others	724	408	316	334	390	116·76
Foreign:—						
Austria Hungary ..	1,874	1,713	161	881	993	112·71
Belgium	117	84	33	138	−21	−15·22
Denmark and Possessions	2,120	1,384	736	2,125	−5	−0·24
France and Possessions	609	409	200	698	−89	−12·75
Germany	4,217	2,743	1,474	4,595	−378	−8·23
Greece	123	94	29	127	−4	−3·15
Italy	428	355	73	423	5	1·18
Netherlands and Possessions	116	105	11	132	−16	−12·12
Poland	97	65	32	101	−4	−3·96
Portugal and Possessions	172	151	21	173	−1	−0·58
Russia and Possessions	387	339	48	365	22	6·03
Spain and Possessions..	59	41	18	88	−29	−32·95
Sweden	1,548	1,337	211	1,514	34	2·25
Norway	1,279	931	348	1,261	18	1·43
Switzerland	333	251	82	342	−9	−2·63
Other European Countries	30	20	10	30	..	..
China	2,902	2,866	36	3,719	−817	−21·97
Africa	103	54	49	134	−31	−23·13
America, North America	776	501	275	969	−193	−19·92
United States of America	881	592	289	780	101	12·95
Other Foreign Countries	422	289	133	485	−63	−12·99
At sea	1,203	590	613	1,322	−119	−9·00
Unspecified	442	302	140	604	−162	−26·82
Allegiance.						
British subjects ..	761,104	396,052	365,052	690,003	71,101	10·30
Foreign subjects ..	11,615	9,940	1,675	13,357	−1,742	−13·04

NOTE.—The minus sign (−) indicates decrease.

SECTION VII.—CONJUGAL CONDITION OF THE PEOPLE.

Of 403,167 males, exclusive of Chinese, 273,113 were returned as unmarried, 118,475 as husbands, 10,653 as widowers, and 926 were unspecified as to conjugal condition.

These figures show a proportion of 67·90 per cent. of males to have been unmarried, 29·45 as husbands, and 2·65 as widowers, or, eliminating all males under 14 years who were necessarily unmarried, 53·91 per cent. not married, 42·29 per cent. husbands, and 3·80 widowers.

Of females, numbering altogether 366,695, there were 230,510 unmarried, 117,821 wives, 17,902 widows, and 462 not specified as to condition. Or, represented proportionally, of females at all ages, 62·94 per cent. were not married, 32·17 were wives, and 4·89 widows. Shutting off those under 14 years, the proportions stand as 45·18 unmarried, 47·59 wives, and 7·23 widows.

The proportions for successive census periods exhibit on the male side a rise in the percentage of the married men and a steady increase in regard to widowers since the year 1878. On the female side the percentage of the unmarried rose with regularity until the year 1891, while the married diminished; but since that date there has been a marked increase in the percentage of the married. The percentage of widows increased steadily. Chinese are excluded from the calculations.

Year.	Males.			Females.		
	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
1878	.. 70·09	28·06	1·85	62·59	34·32	3·09
1881	.. 70·39	27·73	1·88	63·64	33·05	3·31
1886	.. 70·35	27·61	2·04	64·59	31·74	3·67
1891	.. 70·02	27·61	2·37	64·95	30·94	4·11
1896	.. 69·48	27·97	2·55	64·37	31·10	4·53
1901	.. 67·90	29·45	2·65	62·94	32·17	4·89

The proportions at different age-periods show, for males, that the unmarried decrease from 99 per cent. at the period 17–20 to 65 per cent. at the period 25–30 years. At 30–35 years the hubands, who were only 34·61 per cent. at the previous period, exceeded the unmarried, the proportion being of husbands 58·54, unmarried, 40·30, divorced 0·08, and widowers 1·08 per cent. At 80–85 years the widowers were in the highest proportion per cent., the figures being 15·71 unmarried, 39·85 husbands, 0·19 divorced, and 44·25 widowers.

Of the females, 99 per cent. were spinsters at the period 14–18 years; thence onwards the proportion diminished and the wives and widows increased, until at 25–30 years the wives were in the highest

proportion—*i.e.*, 54·07 per cent., against 45·01 of unmarried females, 0·05 of divorced, and 0·87 widows. At 70–75 years the widows had increased so as to exceed the wives, being 52·31 per cent. against 43·53, whilst the spinsters had diminished to 4·16 per cent. At 85 and upwards the widows were 81·01 per cent. of the whole number of females.

The proportion of married women under 20 years of age is still steadily diminishing, while the proportion from 35 to 45 years has an increasing tendency. Women in New Zealand are therefore not now marrying at such early ages as they did in former years. The process brings the relative proportions closer to those that obtain in England :—

PROPORTIONS FOR 100 MARRIED WOMEN AT THE AGES 15 TO 45.

Ages.	England.	New Zealand.					
	1881.	1878.	1881.	1886.	1891.	1896.	1901.
Under 20 years ..	1·10	2·45	2·16	1·81	1·19	1·12	0·98
20 and under 35 years..	59·32	61·90	60·53	60·03	60·12	59·57	59·94
35 „ 45 „ ..	39·58	35·65	37·31	38·16	38·69	39·31	39·08
	100·00	100·00	100·00	100·00	100·00	100·00	100·00

The numbers and proportions according to conjugal condition for each age-period are exhibited in full detail :—

NUMBERS LIVING.

Males.

Ages.	Total.	Unmarried.	Husbands.	Widowers.	Divorced.	Not stated
All ages	403,167	272,858	118,475	10,653	255	926
Specified ages ..	402,760	272,685	118,401	10,641	255	778
14 years and upwards	280,786	150,711	118,401	10,641	255	778
Under 14 years ..	121,974	121,974	..	..	..	..
14 years to 15 years..	8,747	8,747	..	..	..	..
15 „ 16 „ ..	8,456	8,456	..	..	..	..
16 „ 17 „ ..	8,568	8,566	..	..	..	2
17 „ 18 „ ..	8,453	8,443	4	..	..	6
18 „ 19 „ ..	8,536	8,508	16	..	..	12
19 „ 20 „ ..	8,439	8,402	28	..	..	9
20 „ 21 „ ..	8,554	8,440	94	1	..	19
21 „ 25 „ ..	32,607	29,482	2,953	34	4	134
25 „ 30 „ ..	35,145	22,730	12,121	156	10	128
30 „ 35 „ ..	29,468	11,845	17,206	317	24	71
35 „ 40 „ ..	28,983	6,854	16,577	445	41	66
40 „ 45 „ ..	21,128	4,898	15,434	706	26	64
45 „ 50 „ ..	18,647	3,730	13,956	859	47	55
50 „ 55 „ ..	14,948	2,788	11,098	970	34	58
55 „ 60 „ ..	13,450	2,423	9,699	1,259	24	45
60 „ 65 „ ..	12,571	2,320	8,711	1,484	17	39
65 „ 70 „ ..	10,074	2,347	5,927	1,756	15	29
70 „ 75 „ ..	5,317	1,094	2,931	1,267	7	18
75 „ 80 „ ..	2,277	444	1,105	709	3	16
80 „ 85 „ ..	1,048	164	416	462	2	4
85 „ and upwards	375	30	125	216	1	3
Unspecified ..	407	173	74	12	..	148

Females.

Ages.	Total.	Unmarried.	Wives.	Widows.	Divorced.	Not stated.
All ages	366,695	230,361	117,821	17,902	149	462
Specified ages ..	366,487	230,284	117,746	17,881	149	427
14 years and upwards	247,828	111,625	117,746	17,881	149	427
Under 14 years ..	118,659	118,659	..	..	..	..
14 years to 15 years ..	8,358	8,358	..	..	..	..
15 " 16 " ..	8,376	8,375	1	..	..	..
16 " 17 " ..	8,689	8,677	10	..	..	2
17 " 18 " ..	8,430	8,352	72	..	..	6
18 " 19 " ..	8,425	8,215	193	1	..	16
19 " 20 " ..	8,438	7,924	501	..	..	13
20 " 21 " ..	8,583	7,593	963	5	..	22
21 " 25 " ..	33,369	24,114	9,090	67	8	90
25 " 30 " ..	33,227	14,918	17,923	290	16	80
30 " 35 " ..	27,271	6,986	19,617	593	35	40
35 " 40 " ..	21,216	3,373	16,854	929	33	27
40 " 45 " ..	17,347	1,783	14,182	1,342	21	19
45 " 50 " ..	13,995	966	11,309	1,683	17	20
50 " 55 " ..	11,990	665	9,239	2,068	5	13
55 " 60 " ..	9,963	467	7,144	2,330	6	16
60 " 65 " ..	8,017	347	5,222	2,422	6	20
65 " 70 " ..	6,027	253	3,283	2,468	2	21
70 " 75 " ..	3,236	134	1,404	1,687	..	11
75 " 80 " ..	1,679	86	515	1,074	..	4
80 " 85 " ..	852	26	173	649	..	4
85 years and upwards	340	13	51	273	..	3
Unspecified ..	208	77	75	21	..	35

PROPORTIONS TO EVERY 100 LIVING AT EACH AGE.

Males.

Ages.	Unmarried.	Husbands.	Widowers.	Divorced.
All ages	67·84	29·45	2·65	0·06
Specified ages	67·84	29·45	2·65	0·06
14 years and upwards ..	53·82	42·29	3·80	0·09
Under 14 years	..	..	..	..
14 years to 17 years ..	..	..	..	..
17 " 18 " ..	99·95	0·05	..	..
18 " 19 " ..	99·81	0·19	..	..
19 " 20 " ..	99·67	0·33	..	..
20 " 21 " ..	98·89	1·10	0·01	..
21 " 25 " ..	90·79	9·09	0·11	0·01
25 " 30 " ..	64·91	34·61	0·45	0·03
30 " 35 " ..	40·30	58 54	1·08	0·08
35 " 40 " ..	28·66	69·31	1·86	0·17
40 " 45 " ..	23·25	73·27	3·35	0·13
45 " 50 " ..	20·06	75·07	4·62	0·25
50 " 55 " ..	18·72	74·53	6·52	0·23
55 " 60 " ..	18·08	72·35	9·39	0·18
60 " 65 " ..	18·51	69·51	11·84	0·14
65 " 70 " ..	23·37	59·00	17·48	0·15
70 " 75 " ..	20·65	55·31	23·91	0·13
75 " 80 " ..	19·64	48·87	31·36	0·13
80 " 85 " ..	15·71	39·85	44·25	0·19
85 years and upwards ..	8·06	33·60	58·07	0·27

Ages.	*Females.* Unmarried.	Wives.	Widows.	Divorced.
All ages	62·90	32·17	4·89	0·04
Specified ages	62·91	32·17	4·88	0·04
14 years and upwards ..	45·12	47·59	7·23	0·06
Under 14 years	..	..	..	..
14 years to 15 years ..	..	..	..	..
15 " 16 " ..	99·99	0·01	..	..
16 " 17 " ..	99·88	0·12	..	..
17 " 18 " ..	99·15	0·85	..	..
18 " 19 " ..	97·69	2·30	0·01	..
19 " 20 " ..	94·05	5·95	..	..
20 " 21 " ..	88·69	11·25	0·06	..
21 " 25 " ..	72·46	27·32	0 20	0·02
25 " 30 " ..	45·01	54·07	0·87	0·05
30 " 35 " ..	25·65	72·04	2·18	0·13
35 " 40 " ..	15·92	79·54	4·38	0·16
40 " 45 " ..	10·29	81·84	7·75	0·12
45 " 50 " ..	6·91	80·93	12·04	0·12
50 " 55 " ..	5·55	77·14	17·27	0·04
55 " 60 " ..	4·70	71·82	23·42	0·06
60 " 65 " ..	4·34	65·30	30·29	0·07
65 " 70 " ..	4·21	54·66	41·09	0·04
70 " 75 " ..	4·16	43·53	52·31	..
75 " 80 " ..	5·13	30·75	64·12	..
80 " 85 " ..	3·07	20·40	76·53	..
85 years and upwards ..	3·86	15·13	81·01	..

Conjugal Condition of Chinese.

Of 2,825 male Chinese living in the colony, 61 were stated as married and 13 widowed. The instruction on the census schedule was that Chinese not having wives in this colony or any Australian State should be returned as unmarried. Of 32 Chinese females, 18 were returned as married, 12 of the rest being young people under 14 years of age, and 2 from 25 to 29 years old. The half-caste Chinese are referred to on page 236.

Bachelors and Spinsters.

Of 272,685 unmarried males of specified ages, 99,844 were over 20 years of age, and, of 230,284 unmarried females, 103,416 were found to be over 15 years; the excess of spinsters over bachelors was therefore 3,572. Accepting the above as the marriageable ages, the number of bachelors to every 100 spinsters was 97 (nearly).

That a process of equalisation in the numbers of bachelors and spinsters has been going on steadily during past years is proved by the results of previous censuses.

Number of Bachelors aged 20 Years and upwards to every 100 of Spinsters aged 15 and upwards.

Census 1874	238
" 1878	191
" 1881	162
" 1886	123
" 1891	105
" 1896	98
" 1901	97

Husbands and Wives.

The number of husbands of specified ages was 118,401, and of wives 117,746, giving an excess of husbands over wives amounting to 655. This excess of husbands is almost entirely accounted for by the arrival during the last few years of a number of Austrian gum-diggers in the Auckland Provincial District—married men, who did not bring their wives with them.

Widowers and Widows.

The widowers of specified ages numbered 10,641, and the widows 17,881, being a proportion of 60 widowers to every 100 widows. At the census of 1896 the proportion was 62 to every 100 widows.

Divorced Persons.

Four hundred and four persons—namely, 255 men and 149 women—were entered on the census schedules as being divorced. These numbers are not likely to represent fully the actual facts, but are interesting as, no doubt, an approximation to the truth.

Marriage Rates in Australasia.

It was remarked in the report on the census of 1896 that the marriage rate in New Zealand, from being the highest in Australasia, had fallen among the lowest, and that the same process had been going on in regard to birth rates. The lapse of five years places New Zealand in a much better position, the marriage rate being only slightly lower than in Tasmania and Western Australia, but higher than in Victoria, New South Wales, South Australia, and Queensland.

Marriage Rates per 1,000 of Population.

	1874.	1886.	1891.	1895.	1900.
Queensland	8·62	8·67	7·18	6·23	6·88
New South Wales ..	7·70	7·99	7·39	6·95	7·38
Victoria	6·33	7·84	7·69	6·00	6·96
South Australia	8·00	6·24	7·31	5·88	6·50
Western Australia ..	6·96	7·98	8·00	6·83	10·27
Tasmania	6·83	7·26	6·63	5·32	7·71
New Zealand	8·81	5·99	6·04	5·94	7·67

In the year 1880, New Zealand had the highest birth rate in Australasia, but since 1887 the position has been exactly the opposite.

Birth Rates per 1,000 of Population.

	1887.	1891.	1895.	1900.
Queensland	38·09	36·35	32·85	30·21
New South Wales	36·42	34·50	30·66	27·43
Victoria	32·39	33·57	28·57	25·82
South Australia	34·63	33·92	30·23	25·78
Western Australia	37·34	34·85	25·62	31·46
Tasmania	33·87	33·37	30·10	28·25
New Zealand	32·09	29·01	26·78	25·60

Half-caste Chinese.

The schedules showed that at the time of the census 43 European women were married to Chinese, the result of such unions being 106 children (60 males and 46 females). If these half-caste children be added to the number of pure-bred Chinese in the colony the result would be,—

	Persons.	Males.	Females.
Chinese	2,857	2,825	32
Chinese half-castes	106	60	46
	2,963	2,885	78

SECTION VIII.—AGES: MINORS, ADULTS, AND OLD PEOPLE.

THE number of persons under 21 years in March, 1901, was 359,723, and over 21 years 412,356, besides 640 unspecified as to age, but nearly all adults.

Comparison of the population under and over 21 years for 1886, 1891, 1896, and 1901, shows that the number over 21 years is increasing in proportion to the population at all ages.

PROPORTIONS PER CENT. OF PERSONS.—ALL AGES.

	1886.	1891.	1896.	1901.
Under 21 years	53·47	52·46	49·94	46·59
Over 21 years	46·53	47·54	50·06	53·41
	100·00	100·00	100·00	100·00

The males under 21 years in 1901 were 181,753, and the adults 223,807, leaving 432 unspecified as to age, but of whom few were children. The females under 21 numbered 177,970, and adults 188,549, leaving 208 unspecified. The proportions per cent. of population over 21 years of age of each sex are higher for 1901 than for 1896.

PROPORTIONS PER CENT.

	Males.		Females.	
	1896.	1901.	1896.	1901.
Under 21 years	47·72	44·77	52·39	48·53
Over 21 years	52·28	55·23	47·61	51·47
	100·00	100·00	100·00	100·00

The proportion of aged people in the colony increases with time, and the progression is very important to notice. The figures for nine census years, extending from 1867 to 1901 are quoted:—

PERSONS 65 YEARS AND UPWARDS PER CENT. OF POPULATION.

1867 ..	0·86	1878 ..	1·29	1891 ..	2·29
1871 ..	1·08	1881 ..	1·41	1896 ..	2·95
1874 ..	1·22	1886 ..	1·81	1901 ..	4·06

The numbers at the age-periods most often in request may be described thus: Infancy and extreme youth (under 5 years)—males 44,324; females, 42,482: School age (5 to 15 years)—males, 86,414;

females, 84,547: Women at the reproductive age (15 to 45 years)—183,387: The athletic age (21 to 40 years)—males, 121,939; females, 115,099: The militia age (17 to 55 years)—males only, 212,065: The elderly period of life (55 to 65 years)—males, 26,514; females, 17,980: Old-age (65 years and upwards)—males, 19,218; females, 12,135.

The total number of males liable to be called out for service in the militia in March, 1901, was, in round numbers, 129,000, consisting of all males between 17 and 40 years, with the unmarried between 40 and 55 years, less the exemptions, numbering about 37,880 persons. They are classified as under:—

Class I.	Unmarried, between 17 and 30 years ..	86,327
Class II.	Married, between 17 and 30 years ..	15,407
"	Unmarried, between 30 and 40 years ..	18,901
Class III.	Married, between 30 and 40 years ..	34,545
	Unmarried, between 40 and 55 years ..	11,700
		166,880
	Deduct exemptions	37,880
		129,000

Of married men between 40 and 55, there were 43,130.

Age, and Length of Residence.

For a person not born in New Zealand, the householder was required to state on the census schedule the length of his or her residence therein in years, and from the information thus obtained, a table has been compiled showing the number of persons at each year of age, and the length of their residence in the colony, and from this the following figures, which will no doubt be found interesting, are taken:—

On the 31st March, 1901, there were in New Zealand 26,563 persons of 65 years of age and upwards who had been twenty-five years and over resident in the colony, and, at the same time, no less than

3,537	persons	64 years of age and over,	resident	24 years and upwards.	
3,602	"	63 "	"	23	"
3,831	"	62 "	"	22	"
3,532	"	61 "	"	21	"
5,978	"	60 "	"	20	"
4,180	"	59 "	"	19	"
4,676	"	58 "	"	18	"
4,567	"	57 "	"	17	"
5,277	"	56 "	"	16	"
5,030	"	55 "	"	15	"

In addition to the above, there were 925 persons of 65 years and over whose length of residence was not specified, 71 persons who

had resided twenty-five years and over in the colony whose ages were not stated, and 273 adults unspecified both as to age and length of residence, as well as 163 adults born in New Zealand whose ages were not given.

Aliens are included in the foregoing figures, but Maoris are excluded. There were 11,615 foreign subjects (of all ages) in New Zealand on the 31st March, 1901.

Of the New Zealand born, 171 had reached or passed the age of 65 years at the time of the census; 22 were 64 years old; 43 were 63; 42 were 62; 43 were 61; 130 were said to be 60; 167 were 59; 243 were 58; 321 were 57; 386 were 56; and 410 were 55 years old. These have been included in the figures previously given.

SECTION IX.—EDUCATION OF THE PEOPLE.

THE replies given at the Census by householders showed that in every 100 persons living (excluding Chinese), 82·78 per cent. could read and write, 1·95 could read only, and 15·27 were unable to read. The proportion per cent. unable to read fell from 23·72 in 1878 to 21·19 in 1886, to 16·51 in 1896, and, further, to 15·27 in 1901. Of those who could read only, the proportion diminished from 6·76 in 1878 till in 1901 it stood at 1·95 per cent. The following shows the percentages at each census period :—

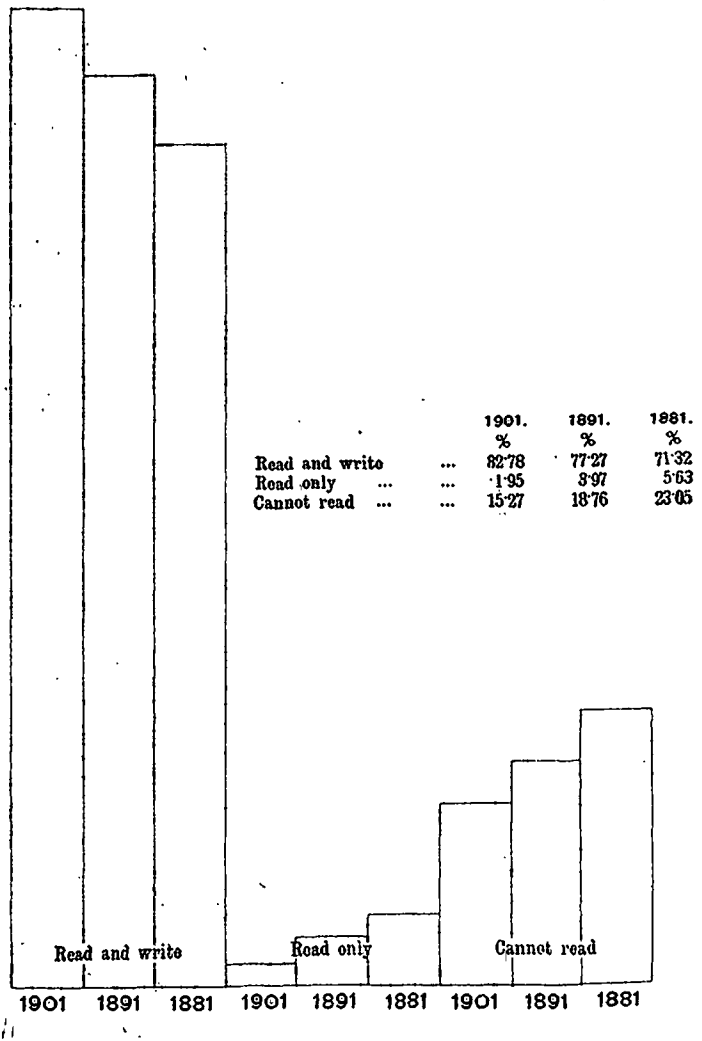
Year.	Read and Write			Read only.			Cannot Read.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1878 ..	69·52	72·11	66·33	6·76	5·91	7·80	23·72	21·98	25·87
1881 ..	71·32	73·31	68·94	5·63	5·01	6·39	23·05	21·68	24·67
1886 ..	74·01	75·40	72·41	4·80	4·36	5·31	21·19	20·24	22·28
1891 ..	77·27	77·97	76·48	3·97	3·74	4·24	18·76	18·29	19·28
1896 ..	80·60	81·06	80·09	2·89	2·71	3·08	16·51	16·23	16·83
1901 ..	82·78	83·08	82·44	1·95	1·81	2·10	15·27	15·11	15·46

Besides the improvement in the degree of education shown above, which is observed in respect of females as well as males, it will be noticed that whereas the difference in the percentage able to read and write is very considerably in favour of the male sex for the year 1878, the proportions approximate more closely at each successive census year, until in 1901 there are found to have been 82·44 per cent. of the female sex who could read and write, against 83·08 of males. The education of the females, taking as a standard the knowledge of reading and writing, is thus almost equal to that of the males. But with a system of free and compulsory education this would be expected in time, and the census results have no longer the degree of importance or interest they had years ago.

It is in considering the proportions of the population at different age-periods that the improvement in education is even more clearly proved, as seen by reference to the table dealing with those subjects.

Here it is found that in 1901, of persons at the age-period 10–15 years, 99·24 per cent. were able to read and write, while 0·34 per cent. could merely read, and 0·42 per cent. were unable to read. The proportion who could not read increased slowly with each succeeding quinquennial period of age, until at 50–55 years it stood at 3·23 per cent. At 75–80 years the proportion was 6·45, and at 80 and upwards it had advanced to 7·68. Similarly, the proportion of persons who could read only increased from 0·34 at 10–15 years to 1·86 at the period 50–55, and again to 7·75 at 80 and upwards. The better education of the people at the earlier ages is thus exhibited. The numbers upon which the above proportions are based are :—

EDUCATION OF THE PEOPLE.—Showing the Percentage of the Total Population able to read and write, to read only, and unable to read, as ascertained at the Censuses of 1881, 1891, and 1901.



	1901.	1891.	1881.
	%	%	%
Read and write	82·78	77·27	71·32
Read only	1·95	3·97	5·63
Cannot read	15·27	18·76	23·05

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Numbers (excluding Chinese).

Ages.	Persons.				Males.				Females.			
	Read and Write.	Read only.	Cannot Read.	Education unknown.	Read and Write.	Read only.	Cannot Read.	Education unknown.	Read and Write.	Read only.	Cannot Read.	Education unknown.
All ages	632,936	14,857	116,821	5,248	332,560	7,223	60,484	2,900	300,376	7,634	56,337	2,348
Specified ages	632,538	14,847	116,798	5,067	332,318	7,217	60,472	2,753	300,220	7,630	56,326	2,311
Specified ages above 5 years	632,538	14,570	30,350	4,996	332,318	7,082	16,324	2,720	300,220	7,488	14,026	2,276
Under 5 years	..	277	86,448	68	..	135	44,148	33	..	142	42,300	35
5 years to 10 years ..	53,408	9,181	21,647	1,491	26,528	4,803	11,206	771	26,880	4,378	10,441	720
10 „ 15 „ ..	84,316	287	357	258	42,586	164	210	137	41,730	123	147	121
15 „ 20 „ ..	84,167	97	351	195	42,041	58	238	115	42,126	39	113	80
20 „ 25 „ ..	82,210	136	494	273	40,570	90	342	159	41,640	46	152	114
25 „ 30 „ ..	67,458	158	478	278	34,564	94	325	162	32,894	64	153	116
30 „ 35 „ ..	55,721	177	489	347	28,856	100	315	192	26,865	77	174	155
35 „ 40 „ ..	44,020	277	591	311	23,342	129	357	155	20,678	148	234	156
40 „ 45 „ ..	27,065	347	726	337	20,373	149	421	185	16,692	198	305	152
45 „ 50 „ ..	31,059	461	780	342	17,812	176	459	200	13,247	285	321	142
50 „ 55 „ ..	25,299	495	860	284	14,185	171	436	156	11,114	324	424	128
55 „ 60 „ ..	21,670	613	850	280	12,596	231	463	160	9,074	382	387	120
60 „ 65 „ ..	18,871	661	825	231	11,729	243	481	118	7,142	418	344	113
65 „ 70 „ ..	14,156	767	1,001	177	9,099	314	564	97	5,057	453	437	80
70 „ 75 „ ..	7,529	464	451	109	4,806	196	246	69	2,723	268	205	40
75 „ 80 „ ..	3,408	249	252	47	2,017	90	146	24	1,391	159	106	23
80 and upwards	2,181	200	198	36	1,214	74	115	20	967	126	83	16
Unspecified age under 21 ..	17	3	11	8	9	2	8	5	8	1	3	3
Unspecified age over 21 ..	381	7	12	176	233	4	4	142	148	3	8	34

Statistics showing the proportion of persons married in different years, and who signed the register with a mark, corroborate the census results as to advance in education. In the year 1881, 32 males and 58 females per 1,000 of either sex were found to be illiterate, as being not able to sign their names. These proportions fell to 19·21 males per 1,000 and 28·96 females per 1,000 of each sex in 1886, and again to 16·33 and 19·23 in 1890; in 1895 the proportions stood at 9·48 for males and the same for females, and in 1900 only 5·29 for males and 5·12 for females.

A table is next given to show particulars in respect of the various principal religious denominations, and of marriages by Registrars:—

PERSONS IN EVERY 1,000 MARRIED WHO SIGNED BY MARK.

Denomination.	1881.		1886.		1890.		1895.		1900.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Church of England ..	16·59	27·15	9·33	12·00	6·08	4·86	3·21	3·21	3·01	5·27
Presbyterians ..	10·25	29·61	9·79	7·62	8·59	15·27	5·00	1·00	2·59	3·23
Wesleyans and other Methodists	32·41	41·79	6·33	14·78	15·20	10·14	4·65	4·65	3·98	3·98
Roman Catholics	117·78	133·33	46·45	65·57	35·26	42·82	17·39	28·26	9·46	6·31
Other denominations ..	10·36	20·72	11·49	22·99	15·00	0·00	10·00	10·00	0·00	0·00
By Registrars ..	39·22	93·51	35·98	62·03	29·77	40·60	22·02	20·73	13·29	10·23
Total marriages	32·04	57·98	19·21	28·96	16·33	19·23	9·48	9·48	5·29	5·13

In all the preceding proportions and numbers the Chinese have been excluded.

Occupiers of houses were directed, in filling up census schedules, to see that Chinese should be set down as unable to read or write unless they could read and write English. Out of a total of 2,857 Chinese, 385 were returned in conformity with these instructions as capable of reading and writing English, 20 as able to read only, and 2,452 as not able to read or write; but of these 2,452, no less than 823 are stated to be able to read and write Chinese, and 17 to read only in that language.

ATTENDANCE AT SCHOOL (AS SHOWN FOR MARCH, 1901, BY CENSUS RESULTS.)

An inquiry was made as to the number of children attending schools of various kinds, besides those receiving tuition at home; also, as to the number of Sunday-school scholars and teachers. While information is always obtainable from the Educational Department as to children attending public schools, the number at private schools can only be got at by means of the census, or by special applications made for the purpose to the proprietors, which is done once a year. The census figures serve to check the returns received from private schools; while for Sunday-schools and tuition at home there is no other source of information.

The compiled tables give the attendance for March, 1901 :—

	Total.	Boys.	Girls.
At Government primary schools	132,911	68,360	64,551
At college, high, grammar, or private schools ..	19,837	8,994	10,843
Being taught at home	5,055	2,215	2,840

Comparison with former censuses shows increasing numbers at the schools, but latterly a decline in the home tuition. Possibly a gradually advancing density of population in the country districts accounts for the diminution in the children taught at home. The figures at last five successive censuses are :—

	At Government Primary Schools.	At College, High, Grammar or Private Schools.	Receiving Tuition at Home.
April, 1881	87,811	13,538	7,348
March, 1886	110,644	14,948	7,567
April, 1891	124,063	17,047	8,178
April, 1896	133,364	17,600	6,352
March, 1901	132,911	19,837	5,055

As to attendance at Sunday-schools, a comparison can only be made if the teachers be included with the scholars. Proceeding on these lines a large development is found since 1878 :—

Census Year.	Totals.	Males.	Females.
1878	62,278	30,707	31,566
1886	99,884	48,509	51,375
1896	116,045	54,063	61,982
1901	118,412	54,834	63,578

The excess of females over males would seem to grow greater, considered numerically, as well as in proportion to the numbers, with time.

Comparing the results as to teachers and pupils separately for 1901 and 1896, an increase of 188 is found in the Sunday-school teachers, and of 2,179 in the number of scholars, the increase being more marked in the female than in the male sex.

Census Year.	Teachers.	Pupils.		
		Males.	Females.	Total.
1901 ..	11,299	50,932	56,181	107,113
1896 ..	11,111	50,096	54,838	104,934
Increase ..	188	836	1,343	2,179

School Statistics to 31st December, 1900.

It has been found impossible to collect the full statistics relating to schooling for the year 1901 in time for this work, and the figures for the previous year are accordingly given.

The number of schools, teachers, and scholars, as in December, 1900, are shown in the following summary:—

Description of Schools.	Number of Schools.	Teachers.	Scholars.
EUROPEAN.			
Public (Government) schools (scholars other than Maoris and half-castes)	1,674	3,586*	128,202
Public (Government) schools (half-castes living among Europeans)			1,086
Colleges, grammar, and high schools (aided or endowed)	26	150	2,792
Private and denominational schools (excluding Maori scholars)	304	831	15,555
Industrial schools and orphanages	..	..	717
Native village schools, European children attending	..	..	347
Private Native boarding-schools, European children attending	..	..	20
School for Deaf-mutes	1	..	45
Jubilee Institute for Blind	1	1	18
Totals—European	2,006	4,568	148,782†

Description of Schools.	Number of Schools.	Teachers.	Scholars.
NATIVE.			
Native village schools supported by Government (excluding European children stated above)	89	151‡	2,762
Private Native boarding-schools (maintenance of scholars paid by Government)	4	12	71
Private Native boarding-schools (maintenance of scholars paid from endowments)			131
Private Native day-schools	3	6	92
Public (Government) schools, Maoris attending	..	..	1,233
Public (Government) schools, half-castes living as Maoris attending	..	..	203
Private and denominational schools for Europeans, Maoris attending	..	..	47
Totals—Native	96	169	4,539

* And 181 sewing-mistresses.

† In addition to the above, the census results showed that 5,055 children (2,215 boys, 2,840 girls) were being taught at home in March, 1901. Attendance at Sunday-schools is given on p. 243.

‡ And 8 sewing-mistresses.

Thus at the end of 1900 there were 2,100 schools of all classes at which members of the European and Maori races were being educated. This was an increase of 21 on the number in 1899. The public primary schools numbered 1,674 in 1900, against 1,645 in 1899. The number of aided or endowed colleges, grammar, and high schools was 26, one more than in the previous year. The

number of private schools from which returns were received by the Registrar-General was 304, a decrease of 3. There were also ten industrial schools and orphanages, public and private, as well as a school for deaf-mutes subsidised by Government, and a school for the blind, which have not been included in the increase shown for the year.

The number of schools established for the education of the Native or Maori race was 96, five more than in 1899.

Education at the public schools is free (except that, at such as are also district high schools, fees are charged for the teaching of the higher branches) and purely secular. The attendance of all children between the ages of 7 and 13 is compulsory, except when special exemptions are granted, or a child is being otherwise sufficiently educated.

The subjects of instruction at the primary schools are required by the Education Act to be the following: Reading, writing, arithmetic, English grammar and composition, geography, history, elementary science and drawing, object-lessons, vocal music, and (in the case of girls) sewing and needlework, and the principles of domestic economy. Provision must also be made for the instruction in military drill of all boys in these schools.

"The Manual and Technical Instruction Act, 1900," provides for manual and such subjects of technical instruction as are prescribed by regulations under this statute being included in the list of subjects named in the Education Act. Thus manual instruction may be given in ordinary school-hours.

Public (Government) Schools.

Compared with 1899 there was in 1900 a further falling-off in the number of pupils belonging to the public schools at the end of the year, although the average attendance shows an increase of 1,431 for the whole year and 2,448 for the fourth quarter, which is thus commented upon in the report of the Minister of Education:—

There have been since 1893 two methods of calculating the average attendance at any given school. To find the one, called the "strict average," account has been taken of all the half-days on which the school has been open; the other, the "working average," has been found by omitting from the calculation all those half-days on which less than half the number on the roll are present.

For the last eight years the capitation grants have been paid to Education Boards on the working average, the Order in Council authorising such payment having been renewed from time to time. It has now been finally decided to adopt the working average as the basis of payments to Boards and of all tables and returns; the working average, in fact, becomes henceforth the only average recognised, and the strict average disappears.

The working average for 1900 was 111,747, an increase of 1,431 on that of 1899, which was 110,316. In 1898 the average was 111,636, and in 1897, 112,328.

The following table shows the attendances from 1877 to 1900:—

SCHOOL ATTENDANCE AND YEARLY INCREASE FROM 1877 TO 1900.

Year	School Attendance.					Yearly Increase on			
	Number belonging at Beginning of Year.	Number belonging at End of Year.	Average Attendance*		Average Attendance expressed as Percentage of Roll-number.	Number belonging at Beginning of Year.	Number belonging at End of Year.	Average Attendance†	
			Fourth Quarter.	Whole Year.				Fourth Quarter.	Whole Year.
1877	...	55,688	...	...	...	...	...	...	...
1878	50,849	65,040	49,435	45,521	...	...	9,352	...	...
1879	59,707	75,566	57,301	53,067	73·8	8,858	10,526	7,866	7,546
1880	68,124	82,401	62,946	60,625	74·6	8,417	6,835	5,645	7,558
1881	74,359	83,560	63,009	61,822	74·2	6,235	1,159	63	1,197
1882	76,309	87,179	66,426	63,709	73·6	1,950	3,619	3,417	1,887
1883	79,416	92,476	70,077	67,373	74·0	3,107	5,297	3,651	3,664
1884	84,883	97,238	74,650	72,657	75·1	5,467	4,762	4,573	5,284
1885	90,670	102,407	80,183	78,327	76·6	5,787	5,169	5,533	5,670
1886	95,377	106,328	83,361	80,737	76·1	4,707	3,921	3,178	2,410
1887	99,206	110,919	87,386	85,637	77·0	3,829	4,591	4,025	4,900
1888	103,534	112,685	90,849	90,108	79·3	4,328	1,766	3,463	4,471
1889	104,919	115,456	94,308	93,374	80·3	1,385	2,771	3,459	3,266
1890	108,158	117,912	96,670	94,632	79·9	3,239	2,456	2,362	1,258
1891	110,665	119,523	96,264	97,058	80·3	2,507	1,611	[−406]	2,426
1892	112,279	122,620	100,917	99,070	80·6	1,614	3,097	4,653	2,012
1893	114,305	124,686	99,872	98,615	78·5	2,026	2,066	[−1,045]	[−455]
1894	116,819	127,300	107,032	104,996	81·8	2,514	2,614	6,279	4,875
1895	113,900	129,856	108,708	108,394	82·8	3,081	2,556	1,676	3,398
1896	122,425	131,037	110,274	110,517	83·3	2,525	1,181	1,566	2,123
1897	123,533	132,197	111,952	112,328	83·9	1,108	1,160	1,678	1,811
1898	123,892	131,621	109,561	111,636	83·4	359	[−576]	[−2,391]	[−692]
1899	123,207	131,915	109,050	110,316	82·6	[−685]	[−306]	[−511]	[−1,320]
1900	123,416	130,724	111,498	111,747	84·1	209	[−591]	2,448	1,431

* From 1877 to 1893 (inclusive) the "strict" average is given, and for subsequent years the "working" average.

† From 1877 to 1894 (inclusive) the increase on the "strict" average is given, and for subsequent years that on the "working" average.

The average of the weekly roll-numbers throughout the year shows a further falling-off from that of 1899, which was less than the year before, the figures being 132,897 for 1900, as against 133,540 for 1899, a decrease of 643. If we attempt to discover the reason for this falling-off in the roll-number by an examination of the roll-numbers at the end of the year, we find that it is not due to any diminution in the number of young children entering the schools, inasmuch as the number of children under nine years of age was 235 more at the end of 1900 than in December, 1899. On the other hand, the number of children over fourteen years of age was 407 less than in the previous year, a fact that seems to show that a slightly greater number obtained employment as soon as the labour age was reached. It is not so easy to explain the falling-off of 419 in the number of children on the roll between the ages of nine and fourteen. It might, for instance, be due to an increase in the number of those who unfortunately escape going to school altogether, or to an increase in the number on the rolls of private schools. In any case, the decrease is not such as in a single year need cause alarm. It is, however, refreshing to note that the average attendance for the whole year is greater than in any previous year except 1897. Expressed as a percentage of the average weekly roll-number, it gives 84·1 per cent. as representing the regularity of attendance during the year. This is higher than the corresponding percentage for any previous year. In 1897 the average attendance reached 83·9 per cent. of the roll, but in 1899 it fell to 82·6 per cent.

Technical Education.

As stated previously, the new Manual and Technical Instruction Act of 1900 provides for manual and such subjects of technical instruction as are prescribed by regulations under this statute being included in the list of subjects named in the Education Act; and the same Act allows part of the ordinary school-time to be given to elementary manual instruction. During 1900, subsidy was paid on classes in freehand drawing (from flat and round), shading, drawing from nature, painting, modelling, mechanical drawing, engineering and machine construction, geometry and perspective, design and ornament, architecture and building construction, mathematics, natural and experimental science (botany, chemistry, and physics), woodwork, plumbing (theoretical and practical), domestic instruction, English and commercial subjects, and singing.

There are eight fully-equipped Technical or Art Schools, the classes in which during 1900 were attended by about 3,000 students.

In connection with the Canterbury College there is an endowed School of Engineering and Technical Science, the students in which work for the university degree of B.Sc. in engineering. One hundred and twenty-seven students attended in 1900.

The Canterbury Agricultural College has an endowment of over 60,000 acres of land, and possesses extensive buildings, and an experimental farm of a very complete character. The students work for the university degree of B.Sc. in agriculture. There were twenty-five students in 1900.

There are several Schools of Mines located in districts in which mining is actively carried on, and the Otago University maintains a professorial chair of mining and metallurgy, to which the Government makes an annual grant of £500. The number of students in mining in 1900 was 326, fifty-nine of whom were at the Otago University.

With the view of encouraging attendance at technical schools and classes, arrangements have been made with the Railway Department by which teachers of classes registered with the Minister of Education may give certificates to their pupils which will enable them to obtain railway tickets at special rates.

The following table shows the results of examinations conducted in the colony on behalf of the Science and Art Department, London, and of the City and Guilds of London Institute:—

London Technical and Art Examinations, 1900.

["C" represents candidates; "P" passes.]

Subjects of Examination.	Auckland.		Wanganui.		Wellington.		Wellington Sub-centres.*		Napier.		Nelson.		Christchurch.		Timaru.		Dunedin.	
SCIENCE AND ART DEPARTMENT.	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P
Art.																		
Drawing in light and shade	19	18	3	2	14	11	...	...	7	5	...	...	6	6	1	1	21	16
Perspective (elementary)	4	4	...	...	6	6	...	...	4	4	.	...	13	12	2	2	10	7
Model drawing	23	14	4	4	30	13	2	1	17	3		...	20	10	2	.	46	19
Freehand drawing of ornament	37	28	15	8	25	19	13	...	30	8	..	...	17	13	2	2	66	41
Architecture	...	...	...	...	1	1	...	...	1	1	...	...	...	...	.	...	..	...
Geometrical drawing (art)	8	6	6	5	...	...	...	...	...	...	4	4	...	...	...	...	11	9
Design	...	...	2	2	8	6	.	...	...	...	...	...	3	2		...	...	...
Painting from still life	4	3	3	3	3	3	...	.	3	...	...	...	3	3	1	1	...	...
Drawing from life	.	...	...	...	1	1	...	...	...	...	...	...	2	2	..	...	..	...
" the antique	9	9	2	...	2	2	...	...	...	...	...	...	...	...	...	...	3	2
Painting ornament	...	...	3	3	...	...	...	...	...	...	...	...	...	...	.	...	2	1
Principles of ornament (elementary)	...	...	1	1	1	1	...	...	1	1	...	...	...	...	...	...	3	3
Students' works	14	8	13	5	43†	22	...	...	.	...	...	...	5	13	...	...	13	7
Science.																		
Practical plane and solid geometry	4	2	2	1	8	6	1	1	...	...	...	.	1	1	...	...	5	5
Mathematics, stages 1, 2, 3, and 4	...	...	3	2	...	...	...	...	...	...	...	...	...	..	...	...	...	...
Machine construction and drawing	20	8	4	2	8	4	...	...	...	...	...	..	...	...	...	.	11	9
Building construction	5	5	2	2	11	9	...	...	.	...	...	...	5	4	...	..	10	7
Steam	11	5	...	...	3	3	.	...	...	...	...	...	..	...	...	...	...	...
Inorganic chemistry	..	...	3	1	...	...	5	1	...	...	...	...	...	...	...	...	...	...
Applied mechanics	7	3	...	..	...	..	..	...	...	...	...	...	...	...	...	...	...	...
Magnetism and electricity	...	..	...	...	2	1	...	...	...	...	...	...	...	..	...	...	...	...
CITY AND GUILDS OF LONDON INSTITUTE.																		
Telegraphy and telephony	...	...	...	...	1	1	...	...	...	...	...	..	2	1	...	..	...	...
Electric light and power (preliminary)	...	...	...	...	6	4	...	...	...	...	...	...	...	...	...		..	...
Electric light and power	...	...	...	...	3	2	...	...	...	.	...	...	...	...	...	...	...	...
Gas manufacture	..	.	1	1	...	...	...	...	...	...	...	...	...	...	.	...	...	...
Metal plate work (honours)	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	1	1
Carpentry and joinery (ordinary)	...	...	..	...	1	1	...	...	...	...	...	...	...	...	.	...	...	...
" (honours)	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Woodwork, first year	...	...	2	1	...	...	...	...	...	...	...	.	3	3	...	...	1	1
" final	..	..	2	2	...	...	...	...	...	...	...	...	7	3	...	...	...	...
Bookbinding	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Cookery	..	..	..	..	...	...	...	...	...	...	...	...	16	12	...	...	...	..
Mechanical engineering	3	2	...	...	...	..	...	...	...	.	...	...	...	...	...	...	5	4
Plumbing (preliminary)	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	5	4
" (written)	...	...	...	...	9	5	...	...	...	...	...	...	...	...	...	...	8	6
" (practical)	...	...	...	...	9	3	...	...	...	...	...	...	...	...	...	...	...	...
Totals	168	115	72	46	195	124	21	3	63	22	4	4	103	75	8	6	222	143

Total of papers, 856; total of passes, 538.

* Pahiatua and Masterton. † Includes a book prize and a prize. ‡ Includes a prize.

The twenty-fourth annual report of the Minister of Education gave the following remarks on manual training and technical instruction:—

Last year was marked by the most important step that has yet been taken in this colony for the advancement of manual and technical instruction—namely, the passing of the Manual and Technical Instruction Act. Already a considerable impetus to progress in this direction is manifest, but the history of it belongs almost entirely to the present year (1901), and not to the year of which this report treats. Organizing Inspectors have been appointed, and the regulations required to give effect to the Act have been issued. The Act and regulations will, it is believed, offer a degree of encouragement to manual and technical education as liberal as is offered by the State in any part of the world. The Inspectors

have already (August, 1901), visited nearly every part of the colony, have met teachers and others interested, giving model lessons and such information and advice as will enable local controlling authorities to begin work on the best lines or extend the work that has already been begun. The Inspectors have also in hand a series of small manuals suggesting suitable programmes of work in manual and technical classes. One of these, on "Modelling," has already appeared, and two others, on "Woodwork" and "Cardboard-modelling" respectively, will be ready shortly. One of the most satisfactory features of the movement is the degree of interest that is being manifested in regard to the introduction of hand-and-eye training into the schools of the colony, which is, it is satisfactory to note, most marked in the matter of the increasing adoption of kindergarten methods into the teaching of the infant classes. . . .

The controlling authorities recognised are Boards of Education, governing bodies of secondary schools, university colleges, and, in the case of certain classes in existence before the passing of the Act, the managers of those classes. School classes, or classes held in connection with primary or secondary schools, are under the control of the Boards of Education or of the governing bodies respectively. "Special classes"—that is, continuation classes, or classes for manual or technical instruction—established by the same bodies are also under their control. "College classes" are classes for higher technical instruction established and controlled by a university college. Classes may also be established by any suitable public association or corporation acting jointly with a Board of Education or university college; these are called "associated classes," and all the contributing bodies may have a voice, according to the share of the cost of maintenance borne by them, in the election of the managers of the classes. The grants for capitation on the average attendance are twice, or nearly twice, as liberal as under the former Act, and many classes that could not be recognised before may be recognised now. Subsidies are payable upon bequests and on voluntary contributions. Grants are also made, on certain conditions, towards the cost of buildings, apparatus, and material; and a system of scholarships will be initiated shortly, to lead from the day schools to the technical schools, and to afford to the best students in the later opportunities for obtaining higher technical instruction. It is worthy of note, but not yet perhaps generally understood, that the Act and regulations offer just as great inducements for dairy classes and for agricultural instruction as for other forms of technical education; even more, perhaps, for in certain cases capitation may be paid to country classes at one and a half times the rate paid to town classes.

It is hoped that, especially in the schools, the fact will not be lost sight of that manual training should not be treated as a subject apart from the rest of education, but that it should be co-ordinated with the other subjects of instruction, and that its introduction should have a marked influence in making all methods of teaching more concrete, more direct, and more natural. The training of the perceptive powers by observation and attention, the development of the reasoning powers, the training in the ready and clear expression of thought, the growth of literary and artistic taste, and of a sturdy manly morality, all taken together—not any one of them separately—will make good citizens and good workmen.

It is for the local controlling authorities in all parts of the colony to take up the work that it is now made possible for them to do; it is for the various public associations and corporate bodies to do their utmost to encourage those departments of the work in which they are most interested; and it may not, perhaps, be too much to hope that there may be found private donors to whom, as elsewhere, more especially in Great Britain and the United States, the endowment of technical education may seem an object worthy of their generosity.

The total expenditure under the head of technical instruction, exclusive of grants for building, for the year 1900 was £2,723, as follows: Capitation, £1,555 5s. 3d.; special grants under Act of 1895, £400; subsidies on voluntary contributions under section 17 of the Act of 1900, £335 4s 11d.; incidentals, £433 7s. 6d. Details for capitation and grants are given in the next table.

School or Instructor.	Subjects of Instruction (grouped), and Average Attendance.													Payments.	
	Freehand (from Flat and Round) and Shading.	Drawing from Nature, Painting, and Modelling.	Mechanical Drawing and Engineering, and Machine Construction.	Geometry and Perspective.	Design and Ornament.	Architecture, and Building Construction.	Mathematics.	Natural and Experimental Science (Botany, Chemistry, and Physics).	Woodwork.	Plumbing (Theory and Practice).	Domestic Instruction.	English, and Commercial Subjects.	Singing.	Capitation.	Special Grants.
														£ s. d.	£ s. d.
Technical Classes Association, Auckland	9	..	6	7	8	12	4	..	23	8	..	..	..	63 7 9	300 0 0
"Elam" School of Art, Auckland ..	20	20	..	52	..	..	..	..	..	..	..	..	..	83 17 9	..
Payton, Mr. E. W., Auckland ..	8	..	..	..	..	..	..	..	..	..	..	..	..	7 19 8	..
Robinson, Mr. W. I., Auckland ..	..	..	53	11	..	..	..	..	..	..	..	..	..	40 19 0	..
Education Board, Auckland—															
Devonport Public School	..	..	..	..	..	..	..	..	11	..	..	..	..	8 10 0	..
Remuera Public School	..	..	..	..	..	..	..	..	7	..	..	..	..	3 18 9	..
Education Board, Wanganui—															
Technical School, Wanganui ..	33	10	9	11	2	8	..	11	22	..	15	..	..	70 10 8	50 0 0
Technical classes, Palmerston North ..	29	..	..	7	..	..	..	..	..	..	..	..	..	27 7 4	..
" " Hawera	11	9	..	5	..	..	..	..	8	..	..	..	..	24 0 6	..
" " Waverley ..	..	..	..	..	..	..	..	..	..	..	42	..	..	7 17 6	..
" " Mana'a	..	..	..	..	..	..	..	..	..	..	15	..	..	2 17 5	..
" " Eltham	..	..	..	..	..	..	..	..	7	..	13	..	..	5 1 7	..
" " Marton	..	..	..	..	..	..	..	..	..	..	18	..	..	3 7 6	..
" " Bulls	..	..	..	..	..	..	..	..	..	..	28	..	..	5 5 4	..
" " Turakina ..	..	..	..	..	..	..	..	..	..	..	16	..	..	2 18 6	..
" " Feilding	..	..	..	..	..	..	..	..	..	..	16	..	..	2 18 6	..

Education Board, Wellington—																
Technical School, Wellington ..	215	80	36	90	39	21	24	22	54	36	19	11	36	305 6 2	..	
Technical classes, Pahiatua ..	12	..	..	12	..	..	..	..	..	..	..	..	9	5 6 10	..	
" " Carterton ..	22	..	..	..	..	..	..	..	..	..	..	17	..	24 14 11	..	
" " Masterton ..	10	..	..	..	..	..	..	..	..	..	..	..	..	3 11 3	..	
" " Greytown ..	6	..	..	..	..	..	..	..	..	..	11	25	..	7 15 2	..	
Petone Boys' Institute	..	..	5	..	..	..	..	..	..	..	..	..	..	1 17 6	..	
Caverhill, Miss L. L., Petone, Wel'gton	17	17	..	..	..	..	..	..	..	..	..	..	..	18 7 3	..	
Anderson, Mr. R. N., Napier	29	13	14	17	8	..	..	..	..	..	..	..	..	20 18 9	..	
Education Board, Napier—																
Napier Public School	75	..	..	82	77	..	..	..	..	..	..	..	..	38 9 7	..	
Port Ahuriri Public School	61	..	..	64	63	..	..	..	..	..	..	..	..	15 10 0	..	
Beecroft, Miss M. M., Hastings ..	4	..	..	..	..	..	..	..	..	..	..	..	..	2 8 9	..	
Education Board, Nelson—																
Nelson cookery-class	..	..	..	..	..	..	..	..	..	..	43	..	..	5 7 6	..	
Education Board, Grey—																
Greymouth District High School ..	..	..	..	..	..	..	..	..	11	..	..	..	..	12 7 9	..	
Education Board, Westland—																
Kumara District High School ..	..	..	..	..	..	..	..	..	17	..	..	..	..	18 11 6	..	
Canterbury College—																
School of Art, Christchurch ..	260	133	..	119	73	22	..	..	33	..	..	..	..	174 7 5	..	
School of Engineering and Technical Science, Christchurch	..	..	149	51	..	..	..	..	..	..	..	..	..	21 12 6	..	
School of Domestic Instruction, Christ'ch	..	..	..	..	..	..	..	..	..	..	255	..	..	127 5 3	20 0 0	
Education Board, North Canterbury—																
Normal School	..	..	..	..	..	..	..	..	61	..	..	..	..	30 2 6	..	
Amberley Public School	..	..	..	..	..	..	..	..	..	..	25	..	..	18 18 9	..	
Leeston and Doyleston Public Schools	..	..	..	..	..	..	..	..	12	..	19	..	..	16 2 6	..	
Technical Classes Association—																
Dunedin	..	..	43	..	8	..	20	36	30	18	63	85	..	113 5 11	..	
Waiwera South	..	6	..	..	..	..	..	..	..	..	..	..	..	2 1 0	..	
Invercargill	6	..	15	..	..	10	..	7	32	..	10	19	..	28 14 9	30 0 0	
Education Board, Otago—																
School of Art, Dunedin	151	13	14	87	10	9	..	..	..	..	..	..	..	174 16 5	..	
Tokomairiro District High School ..	..	..	..	..	..	..	..	12	11	..	..	..	..	6 7 7	..	
Total	978	301	344	603	288	82	48	88	339	62	608	157	45	1555 5 3	400 0 0	

New Zealand University.

The introduction of university education into New Zealand was effected by the Superintendent and Provincial Council of Otago, who in 1869 passed an Ordinance under which the University of Otago was established. Following closely on the founding of this institution was the establishment of the University of New Zealand under an Act of the General Assembly, "The New Zealand University Act, 1870." This University subsequently received a Royal charter, whereby the degrees which it confers are declared entitled to "rank, precedence, and consideration" throughout the British Empire "as fully as if the said degrees had been conferred by any university of the United Kingdom." It was apparently contemplated by Parliament (*vide* section 19 of the Act last quoted) that the New Zealand University and the Otago University should be amalgamated; but the negotiations for this purpose having failed the two institutions remained for some time distinct bodies. In the year 1874, however, the University of Otago surrendered or put in abeyance its power of conferring degrees, and became affiliated to the University of New Zealand, and at the same time it was stipulated that the University of New Zealand should not directly exercise functions of teaching.

In the year 1873 the Superintendent and Provincial Council of Canterbury passed an Ordinance for founding "The Canterbury College," and the college was accordingly established with the same standard of university education as that of the University of Otago, but without the power of conferring degrees.

In December, 1878, a Royal Commission on University and Secondary Education was appointed by the Governor, which met in July, 1879, and reported that two colleges, with an income of £4,000 each, ought to be established in Auckland and Wellington, and that suitable buildings, at a cost of £12,500 each, should be erected in those cities. In the following year the Royal Commission repeated these recommendations.

"The Auckland University College Act, 1882," which became law on the 13th September in that year, definitely established the college, and endowed it with a statutory grant of £4,000 per annum. By "The Auckland University College Reserves Act, 1885," three blocks of land, containing about 10,000 acres each, and a block containing about 354 acres, which had been devoted to the purpose of promoting higher education in the Province of Auckland, became vested in the Council of University College.

The Auckland University College was affiliated to the University of New Zealand by the Senate of the university on the 6th March, 1883, and on the 21st May in the same year the college was opened by the Governor.

Nothing was done for Wellington until the year 1894, when an Act was passed entitled "The Middle District of New Zealand

University College Act, 1894," which said "There shall be established in the City of Wellington a college to be connected with the University of New Zealand," and provision was made for a governing body to be called the Council, but no provision was made for any pecuniary grant nor any endowment, and, though certain members of the Council were appointed, nothing could be done for want of funds.

Not until 1897 were the needs of Wellington actually attended to. In the session of Parliament that year the Right Hon. Mr. Seddon, P.C., Premier of the colony, introduced the Victoria College Act: an Act, as stated in the preamble, "to promote higher education by the establishment of a College at Wellington in commemoration of the sixtieth year of the reign of Her Majesty Queen Victoria," the college being intended to embrace in its work the Provincial Districts of Wellington, Taranaki, Hawke's Bay, Nelson, Marlborough, and Westland. The Act was passed on the 22nd December, 1897, and the Council was formed as provided in the Act, and the work of organization was begun. The Act provides for the payment out of the Consolidated Fund of a grant of £4,000 a year, and also requires the Council to give six scholarships each year, called "Queen's Scholarships," to persons of either sex under the age of fourteen years, upon the results of an examination under such conditions as the Council may provide. The Act further sets apart a parcel of land 4,000 acres in extent in the Nukumaru Survey District (Wellington Provincial District) as an endowment for the college.

The Council of the college has established four chairs: classics, English, mathematics and mathematical physics, and chemistry and physics; and lectureships in French, German, mental science, jurisprudence and constitutional history, general history, and political economy and law. It is intended as funds allow to add other subjects.

The New Zealand University is not a teaching body, as above explained, undergraduates hitherto for the most part keeping their terms at one or other of the affiliated institutions: the Auckland University College, the Victoria College, the Canterbury College, and the University of Otago, each of which has now a staff of professors and lecturers. On the 1st June, 1901, the number of graduates who had obtained direct degrees was 757.

The number of undergraduates on the roll of the University at that date was 2,481 (exclusive of such as had not performed any academical act for a period of ten years), but only 1,175 were keeping terms (not including undergraduates who had not, in the last two years, entered at a college or come up for any college or university examination), of whom 776 were males and 399 females. Ninety-nine of the males and twenty-two of the females were medical students. The numbers of students attending lectures at the affiliated institutions during the year 1900–1901 were as follow: At the Auckland University College, 100 matricu-

lated and 91 non-matriculated; at Canterbury College, 125 matriculated and 93 non-matriculated; at the Otago University, 217 matriculated and 40 non-matriculated. The Victoria College, before-mentioned, affords further facilities for university students, and in June, 1901, had a total of 139 students on the roll—94 matriculated and 45 non-matriculated.

Private and Denominational Schools.

There were 304 private schools in the colony at the end of 1900, a decrease of 3 on the number in 1899: 28 were for boys, 51 for girls, and 225 for children of both sexes. The number of pupils attending them was 15,555—namely, 6,152 boys and 9,403 girls, not counting Maoris, 23 boys and 24 girls. The number of European pupils at these schools was more than in 1899 by 260. Of the private schools, 132 were Roman Catholic, with an attendance of 10,687 pupils.

The following gives, for the past ten years, the number of private schools and of Europeans attending them, the number of Roman Catholic schools and pupils being also shown separately:—

Year.	Number of Private Schools.	Pupils.			Included in Previous Numbers.	
		Boys.	Girls.	Totals.	Roman Catholic Schools.	Pupils at Roman Catholic Schools.
1891	281	6,234	7,908	14,142	110	10,144
1892	274	6,321	8,135	14,456	105	10,111
1893	299	6,431	8,491	14,922	111	10,263
1894	302	6,117	8,510	14,627	117	9,953
1895	298	6,187	8,472	14,659	114	10,458
1896	283	5,845	8,102	13,947	115	9,590
1897	278	5,974	8,473	14,447	120	9,642
1898	294	6,043	8,739	14,782	124	10,175
1899	307	6,219	9,076	15,295	133	10,526
1900	304	6,152	9,403	15,555	132	10,687

The total number of children of European descent (including such half-castes as live among Europeans) known to be receiving education at school at the end of 1900 was 148,782; of these, 140,796 were from 5 to 15 years of age. The census showed also 5,055 children receiving tuition at home in 1901, against 6,352 in 1896. No doubt increased school accommodation in country places does away with the need for tutors and governesses to a certain extent.

The distribution of the private schools in the various provincial districts of the colony is shown in the two following tables:—

PRIVATE AND DENOMINATIONAL SCHOOLS, 1900.—SUMMARY BY PROVINCIAL DISTRICTS.

Provincial Districts.	Number of Schools.				Number of Teachers.			Number of Scholars.			Daily Average Attendance.		
	Boys.	Girls.	Mixed.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Auckland	4	8	71	83	31	165	196	1,270	2,322	3,592	1,075	1,996	3,071
Taranaki	...	2	11	13	1	26	27	182	304	486	139	266	405
Hawke's Bay	4	4	7	15	9	39	48	473	560	1,033	425	499	924
Wellington...	6	9	40	55	44	141	185	1,279	1,826	3,105	1,125	1,648	2,773
Marlborough	1	...	4	5	...	11	11	138	154	292	115	139	254
Nelson	2	4	9	15	9	31	40	364	473	837	328	427	755
Westland	1	...	10	11	3	23	26	310	341	651	256	301	557
Canterbury	7	16	39	62	19	142	161	1,146	1,707	2,853	947	1,467	2,414
Otago	3	8	34	45	12	125	137	990	1,716	2,706	834	1,531	2,365
Totals	28	51	225	304	128	703	831	6,152	9,403	15,555*	5,244	8,274	13,518

* Exclusive of 47 Maoris (23 boys, 24 girls).

NOTE.—Denominational schools, such as Roman Catholic and Anglican, are included in the above as private schools. Particulars for the Roman Catholic schools in December, 1900, are as under:—

SUMMARY OF ROMAN CATHOLIC SCHOOLS.

Provincial Districts.	Number of Schools.				Number of Teachers.			Number of Scholars.			Daily Average Attendance.		
	Boys.	Girls.	Mixed.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Auckland	2	7	23	32	7	76	83	723	1,447	2,170	614	1,212	1,826
Taranaki	...	2	3	5	...	15	15	131	202	333	100	172	272
Hawke's Bay	2	3	2	7	4	28	32	361	451	812	319	397	716
Wellington	3	4	12	19	22	64	86	837	1,113	1,950	722	1,007	1,729
Marlborough	1	...	2	3	...	7	7	126	120	246	105	108	213
Nelson	1	3	4	8	...	21	21	182	345	527	155	311	466
Westland	1	...	8	9	3	20	23	289	321	610	242	288	530
Canterbury	3	6	13	22	9	66	75	819	1,104	1,923	668	939	1,607
Otago	3	4	20	27	11	73	84	872	1,244	2,116	749	1,120	1,869
Totals	16	29	87	132	56	370	426	4,340	6,347	10,687	3,674	5,554	9,228

Schools for Natives.

The number of Native village schools at the end of 1900 either supported or subsidised by the Government was 89, or one more than at the end of the previous year. In addition, there were four boarding-schools for Native children, the cost of whose maintenance was partly paid either by the Government or from endowments, and three private Native day-schools. The number of Maori children attending schools during the fourth quarter of 1900 was 4,539—namely, 2,610 males and 1,929 females. These included 280 half-castes at the Native village schools who were living as members of Maori tribes, and 203 at public European schools.

The numbers at the several schools in 1899 and 1900 were as follow:—

Schools.	Maori Children attending Schools.					
	Boys.		Girls.		Total of both Sexes.	
	1899.	1900.	1899.	1900.	1899.	1900.
At public European schools ..	914	839	647	597	1,561	1,436
At Native village schools ..	1,567	1,576	1,186	1,186	2,753	2,762
At subsidised or endowed boarding-schools	112	111	80	91	192	202
At private European or Native schools	114	84	40	55	154	139
Totals	2,707	2,610	1,953	1,929	4,660	4,539

There was thus, in 1900, a decrease of 97 in the number of Maori boys, and 24 in the number of Maori girls, attending school.

Seventy-one out of the eighty-nine Native village schools in operation on 31st December, 1900, were under the charge of masters and seventeen under mistresses, and one under the joint control of a master and mistress; there were besides forty-one assistants, and eight sewing-mistresses. The salaries paid to the head-teachers range from £61 to £280, and those for assistants and sewing-mistresses from a nominal sum to £50.

The expenditure on Native schools for 1900 was as follows: Teachers' salaries and allowances, £13,206 9s. 9d.; books and school requisites, £492 3s. 2d.; repairs and small works, £475 5s. 11d.; inspection, £960 19s. 10d.; boarding-schools and scholarships, £1,846 18s. 5d.; buildings, fencing, furniture, &c., £2,748 3s.; technical instruction classes, £111 14s. 6d.; sundries, £143 17s. 6d.: total, £19,985 12s. 1d.

Income and Expenditure of Education Boards.

The total income of the various Education Boards for the year 1900 was £496,423. The grants by Government amounted to £447,375, an increase of £11,323 on the grants in 1899. These grants consist of (*a*) a statutory allowance of £3 15s. per child in daily average attendance, (*b*) a further capitation allowance of 1s. 6d. for scholarships, (*c*) a varying sum for school buildings, and

(*d*) grants for technical education. The income from reserves amounted to £41,381, and that from local receipts, &c., to £7,667.

The total expenditure in 1900 amounted to £490,378, of which the sum of £401,977 was laid out on the maintenance of the schools.

The receipts and expenditure of the Education Boards, numbering thirteen altogether, are tabulated below, with further particulars:—

RECEIPTS AND EXPENDITURE OF EDUCATION BOARDS.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
To Balance, 1st January, 1900	5,520 13 10	By Boards' administration ...	14,532 4 0
Government grants—		Inspection and examination	14,698 18 4
Maintenance	387,637 10 8	Teachers' salaries and allowances, and training	360,764 6 9
Buildings	58,740 12 6	Incidental expenses of schools	32,823 17 5
Technical	996 15 9	Scholarships	8,388 17 0
Reserves revenues ...	41,381 1 8	Manual and technical instruction	5,750 18 2
Local receipts—		Interest	327 9 11
Fees, donations, &c. ...	4,664 3 9	Buildings, sites, plans, &c.	51,805 18 3
Rents, sales, &c. ...	1,126 18 1	Refunds and sundries ...	1,315 12 4
Interest	85 13 7	Balances	11,565 8 8
Refunds, deposits, &c. ...	1,790 1 0		
	£501,943 10 10		£501,943 10 10

Particulars of the scholarships and the expenditure of the Boards thereon in 1900 are given in detail. The only institutions for the training of teachers are in North Canterbury and Otago. These two institutions have received grants-in-aid of £500 each.

SCHOLARSHIPS.

Education Districts.	Number held in Dec., 1900.	Boys.	Girls.	Period of Tenure.	Boards' Expenditure on Scholarships in 1900.	Annual Value, &c.
				Years.	£ s. d.	
Auckland ...	77	45	32	3	1,611 5 5	5 at £30, 20 at £25, 19 at £20, 33 at £15.
Taranaki ...	15	8	7	2	269 6 5	2 at £35, 1 at £19, 1 at £17, 1 at £16, 2 at £14, 7 at £10, 1 at £7 6s.
Wanganui ...	18	9	9	Varies	583 7 0	11 at £40, 1 at £32, 6 at £15.
Wellington ...	44	27	17	2	951 0 0	11 at £35, 33 at £15.
Hawke's Bay ...	26	14	12	2	483 13 6	7 at £30 4s., 3 at £12 4s., 16 at £10 4s.
Marlborough ...	5	1	4	2	186 13 4	5 at £40.
Nelson	9	4	5	Varies	377 7 6	6 at £50 10s., 1 at £25, 2 at £5.
Grey	8	3	5	3	112 10 0	4 at £35, 4 at £10.
Westland ...	7	3	4	2	99 5 6	2 at £23, 1 at £8 18s., 4 at £8.
North Canterbury	38	19	19	2	1,266 5 0	18 at £40, 20 at £20.
South Canterbury	30	16	14	2	346 17 6	Varies from £2 10s. to £26 10s.
Otago	51	35	16	Varies	1,242 3 4	8 at £40, 4 at £35, 1 at £24, 1 at £22, 20 at £20, 4 at £17, 13 at £15.
Southland ...	21	13	8	Varies	612 16 3	12 at £35, 9 at £20.
Totals, 1900 ...	349	197	152	...	8,142 10 9	
Totals, 1899 ...	341	201	140	...	8,424 4 2	

Income and Expenditure of Secondary or Superior Schools.

A summary of the accounts of income and expenditure for the year 1900, as furnished by the governing bodies of the secondary or superior schools in the colony, shows the total receipts to have been

£66,430. To this total, rents and sales of reserves contributed £26,745; interest on investments, and other receipts from endowments, £4,875; fees, £31,067; and miscellaneous, £3,743.

The total expenditure amounted to £76,561, of which sum office management and expenses absorbed £2,648; teachers' salaries, £33,585; scholarships and prizes, £2,570; buildings, furniture, insurance, rates, and rent, &c., £8,153; and other expenditure, £29,605. Included in the last item is a sum of £15,661, capital invested, which cannot be classed as ordinary expenditure.

A summary of the accounts for the year 1900, exhibiting further details, is given below:—

SECONDARY OR SUPERIOR SCHOOLS, 1900.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
To Credit balances on 1st January, 1900	19,859	3	6	By Liabilities on 1st January, 1900	2,222	14	6
Endowment reserves sold	3,207	9	0	Expenses of management	2,647	13	6
Mortgage moneys repaid	2,558	0	6	School salaries	33,584	19	0
Rents of reserves ...	23,537	10	6	Boarding-school accounts	4,796	9	6
Interest on investments	1,510	0	1	Examination expenses ...	301	9	7
Reserves Commissioners' payments	3,065	1	9	Scholarships and prizes ...	2,569	15	9
School fees	24,792	5	1	Printing, stationery, advertising, fuel, light, &c.	3,154	2	11
Boarding-school fees ...	6,274	19	8	Buildings, furniture, insurance, rent, and rates	8,153	12	5
Books, &c., sold, and refunds	159	9	5	Expenditure on endowments	2,809	16	11
Sundries not classified ...	1,025	10	10	Capital invested	15,661	2	7
Debit balances, 31st December, 1900	5,028	17	8	Interest	1,610	14	0
				Sundries not classified ...	1,271	10	10
				Credit balances, 31st December, 1900	12,534	6	6
	£91,318	8	0		£91,318	8	0

Industrial Schools.

The cost of the Government schools and the amount recovered (from Charitable Aid Boards, from parents, from sale of farm produce, &c.) are next shown:—

COST OF GOVERNMENT INDUSTRIAL SCHOOLS, 1900.

School.	Gross Cost of School.			Cost of Boarding out (Included in preceding column).			Salaries of School Staff. (Included in first column.)			Recoveries.			Net Cost.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Auckland ..	2,134	17	8	712	16	11	193	17	7	628	9	0	1,506	8	8
Burnham ..	7,132	2	2	2,541	0	1	1,405	8	11	1,656	19	1	5,475	3	1
Caversham ..	7,257	17	4	3,323	9	9	975	3	2	2,898	8	10	4,359	8	6
Te Oranga Home	975	13	6	..			130	0	8	261	9	8	714	3	10
Receiving-home, Wellington	468	8	3	54	16	3	18	17	4	100	6	3	368	2	0
Receiving-home, Christchurch	22	18	9	..			9	15	5	..			22	18	9
Totals ..	17,991	17	8	6,632	3	0	2,733	3	1	5,545	12	10	12,446	4	10
Salary and expenses of Visiting Officers				..			..			..			526	10	3
Travelling-expenses of other officers				..			..			..			80	15	0
Contingencies				..			..			..			10	7	0
Total ..				..			..			..			£13,063	17	1

The next table shows payments made by the Government on account of inmates in private industrial schools, the recoveries, and the net expenditure by the Government. The contributions from Charitable Aid Boards to these schools, being made directly to the managers, are not included in the recoveries shown.

GOVERNMENT EXPENDITURE ON PRIVATE INDUSTRIAL SCHOOLS (R.C.), 1900.

School.	Payments.	Recoveries.	Net Expenditure by Government.
	£ s. d.	£ s. d.	£ s. d.
St. Mary's, Auckland	1,423 4 0	128 0 4	1,295 3 8
St. Joseph's, Wellington ..	311 11 0	24 0 4	287 10 8
St. Mary's, Nelson	1,584 18 10	217 9 11	1,367 8 11
St. Vincent de Paul's, Dunedin	52 17 0	4 0 0	48 17 0
Totals	3,372 10 10	373 10 7	2,999 0 3

During 1900, inmates were maintained in five other institutions, and the expenditure on this account was as follows: Mission Home, Jerusalem, Wanganui (Mother Aubert's), £124 16s.; St. Mary's, Richmond, Christchurch, £84 1s. 6d.; Samaritan Home, Christchurch, £3 10s.; Mount Magdala, Christchurch, £214 7s. 9d.; Levin Memorial Home, Wellington, £27 19s. 1d.

The total number of inmates of the two kinds of industrial schools is given for the years 1899 and 1900, and the variations in the numbers boarded out, in residence, or at service:—

INMATES, 1899 AND 1900.

—	Boarded out.				In Residence.				At Service, &c.				Totals.			
	Dec., 1899.	Increase.	Decrease.	Dec., 1900.	Dec., 1899.	Increase.	Decrease.	Dec., 1900.	Dec., 1899.	Increase.	Decrease.	Dec., 1900.	Dec., 1899.	Increase.	Decrease.	Dec., 1900.
Government Schools—																
Auckland	44	2	..	46	9	7	..	16	36	..	4	32	89	5	..	94
Burnham	158	4	..	162	104	4	..	108*	262	30	..	292	524	38	..	562
Caversham ..	206	..	12	194	87	8	..	95	202	3	..	205	495	..	1	494
Te Oranga Home, Christchurch	..	..	..	..	..	12	..	12	..	1	..	1	..	13	..	13
Private Schools—																
St. Mary's, Auckland	..	..	..	..	96	4	..	100	29	..	2	27	125	2	..	127
St. Joseph's, Wellington	3	..	1	2	51	..	2	49	28	3	..	31	82	..	..	82
St. Mary's, Nelson ..	6	..	1	5	229	..	27	202†	101	..	1	100	336	..	29	307
St. Vincent de Paul's, South Dunedin	..	..	..	..	14	2	..	16	3	5	..	8	17	7	..	24
Totals ..	417	6	14	409	590	37	29	598	661	42	7	696	1,668	65	30	1,703

* Including seven children in the receiving-homes. † Including one child in a receiving-home.

In the Government schools the policy is to board out all children of suitable age and character. The authorities of the private schools do not adopt the boarding-out system.

Institute for the Blind.

The Jubilee Institute for the Blind is a private institution, and is not in any way under Government control, although it has received grants from time to time out of the Consolidated Revenue, and receives payment from the Education Department on account of pupils for whose tuition the department is responsible.

The payments made on behalf of such pupils to the Institute during the year amounted to £338 15s. 5d., towards which the parents contributed £31 8s. The number of pupils at the end of 1900 was fifteen.

School for Deaf-mutes.

The roll of this school includes, with one or two exceptions, all the known deaf-mutes of school age and of sound intellect in the colony who have been brought under the notice of the Education Department. The method of instruction used at Sumner is the oral method, in favour of which there is a vast predominance of expert opinion.

Y.B. Savage Island.—Awaiting Arrival of His Excellency Lord Ranfurly.

SECTION X.—SICKNESS AND INFIRMITY.

An instruction was given in the census household schedule that in regard to all persons "laid up or unable to follow their usual occupation," by reason of illness or accident, the fact was to be stated when the form was being filled up. And by means of the information thus obtained the proportion of persons incapacitated from work on the day of the census has been ascertained, and is shown in the tables according to age-periods.

Besides persons suffering from sickness or accident, those afflicted with certain infirmities are also distinguished. These include the "deaf-and-dumb," "blind," "lunatics," "idiots," "epileptics," "paralytic," "crippled and deformed," "debilitated and infirm," and "deaf only."

The result of the investigation under this head shows that 9·28 persons in every 1,000 were suffering from sickness or accident on the 31st March, 1901, using the word "sickness" to mean inability to work on that day; and that, besides these, there were 7·20 persons in every 1,000 who were either affected with blindness, or deaf-and-dumb, lunatic, idiot, epileptic, &c., the proportion per 1,000 persons living stated to be suffering from sickness, accident, and infirmities being 16·48: for males, 20·09 per 1,000 living, and for females, 12·49.

The sickness and infirmity of the males is thus found to be higher than that of the females, as was the case in 1896, when the proportion was 20·92 for males and 14·36 for females.

The numbers and proportions of males and females suffering from sickness, accident, or specified infirmity in this colony, according to age-periods, will be found tabulated in the Report on the Census. In regard to males, after the period 35–40 the proportion of sickness rises steadily at each quinquennium of age; while under accident the proportion is highest at the period of 70–75 years. The rate of sickness per 1,000 males living at 35–40 years was 5·68, and this increased to 18·38 at 55–60, to 54·62 at 65–70, and to 70·18 at 80 and upwards. In regard to females, the sickness is not so great at 40–45 years as at 35–40, but from this point it increases, and from 50–55 very rapidly, though the numbers on which the pro-

portions are based are admittedly small from this age onwards. The rates per 1,000 were 6·97 at 35–40 years, 13·95 at 55–60, and 47·82 at 80 years and upwards.

Females are proved to be very much less liable to accident than males, the proportions being 0·63 per 1,000 of females, and 3·03 per 1,000 of males; or better stated for this purpose, 6·27 per 10,000 females and 30·28 per 10,000 males. As with sickness, the proportions increase with advancing age: for instance, among males, 3·37 per 1,000 were suffering from accident at the group 20–25 years, 3·75 per 1,000 at 40–45, 10·24 at 65–70, and 12·90 at the group 70–75 years. Among females the highest proportion per 1,000 is found at 75–80 years, being a rate of 5·36, or 53·60 per 10,000 living.

Sickness and infirmity can be compared for New Zealand, in respect of persons over 15 years of age, with the results of the census of 1896 and previously. The proportions are:—

PROPORTION PER 1,000 PERSONS OVER 15 YEARS.

	Sickness and Accident.	Specified Infirmities.	Total Sickness and Infirmity.
Census 1874	12·64	5·32	17·96
" 1878	11·16	5·70	16·86
" 1881	11·20	7·22	18·42
" 1886	12·61	7·82	20·43
" 1891	12·78	11·08	23·86
" 1896	14·28	11·41	25·69
" 1901	12·72	10·29	23·01

Specified Infirmities.

The total of these under the various heads amounted to 5,574 of both sexes and all ages. The males were 3,466, and the females 2,108, the proportions for every 10,000 persons being 71·98: for males 85·21, and for females 57·35 per 10,000 of each sex respectively. These infirmities are specially treated of one by one in the succeeding paragraphs.

Deaf and Dumb.

There were 226 persons—134 males and 92 females—returned as deaf and dumb, or dumb only: of these 45 were inmates of the Sumner Institution, leaving 181 deaf-mutes who were living at home or in some other private residence. The total shows a proportion of 2·91 persons per 10,000 living, against 2·86 ascertained in 1896. The proportions of the deaf and dumb taken according to the sexes did not differ much. The figures are given for six census years.

DEAF AND DUMB (IN SEXES).—PROPORTIONS PER 10,000 OF POPULATION.

	Males.	Females.		Males.	Females.
Census 1878 ..	2·25	2·18	Census 1891 ..	2·80	2·49
" 1881 ..	2·23	2·45	" 1896 ..	2·99	2·71
" 1886 ..	2·37	2·22	" 1901 ..	3·28	2·51

The numbers at the census of 1901 for quinquennial age-periods are:—

NUMBERS OF THE DEAF AND DUMB AT LAST CENSUS.

	M.	F.		M.	F.
All ages	134	92	40 years to 45 years ..	5	5
	—	—	45 „ 50 „ ..	6	1
Under 5 years	..	..	50 „ 55 „ ..	3	5
5 years to 10 years ..	18	16	55 „ 60 „ ..	5	1
10 „ 15 „ ..	32	14	60 „ 65 „ ..	3	1
15 „ 20 „ ..	18	10	65 „ 70 „ ..	..	1
20 „ 25 „ ..	16	8	70 „ 75 „ ..	..	..
25 „ 30 „ ..	8	12	75 „ 80 ..	1	2
30 „ 35 „ ..	12	8	80 „ and upwards ..	..	..
35 „ 40 „ ..	6	8	Unspecified	1	..

The highest numbers are shown at the ages 10 to 15.

The occupations (past or present) of the deaf and dumb were returned in 1901 as under:—

OCCUPATIONS (PAST OR PRESENT) OF THE DEAF AND DUMB.

	Persons.	M. Under 20.	M. Over 20.	F. Under 20.	F. Over 20.
Draughtsman ..	1	..	1	..	..
Hotel servant ..	1	..	1	..	..
Domestic servant	4	1	..	..	3
Charwoman ..	1	..	..	..	1
Milkman ..	1	..	1	..	..
Storekeeper's assistant ..	1	..	1	..	..
Printer'sassistant	1	1	..	..	..
Saddler ..	2	..	2	..	..
Tanner ..	1	..	1	..	..
Cabinetmaker ..	1	1	..	..	..
Tailor	2	..	2	..	..
Dressmaker ..	6	..	..	2	4
Bootmaker ..	1	..	1	..	..
Labourer at freezing-works ..	1	1	..	..	..
Brewer'sassistant	1	..	1	..	..
Fellmonger ..	1	..	1	..	..
Carpenter ..	4	1	3	..	..
Labourer ..	4	1	3	..	..
Farmer ..	4	..	4	..	..
Gardener ..	3	..	3	..	..
Farm-labourer ..	13	1	12	..	..
Sheep-farmer ..	1	..	1	..	..
Shepherd ..	1	..	1	..	..
Dairy-farmer ..	4	..	4	..	..
Independent means ..	2	..	2	..	..
No occupation ..	8	..	8	..	..
Domestic duties	38	..	..	1	37
Scholar, private school ..	2	1	..	1	..
Scholar, government school ..	8	6	..	2	..
Receiving tuition at home ..	3	2	..	1	..
Dependent on relatives ..	41	20	5	11	5
Inmate of deaf and dumb institution ..	45	24	1	20	..
Industrial school	1	..	..	1	..
Occupation not stated ..	18	8	7	1	2
	226	68	66	40	52

Blind.

There were 297 males and 156 females, making a total of 453 persons returned as blind, including 63 who were given in the schedules as "nearly" or "partly" blind. Of the above total

number, 15 were inmates of the Jubilee Institute for the Blind at Auckland. It would thus appear that only one out of every thirty persons in the colony who suffered from blindness had been received into the institution. The number of blind persons in 1896 was 344. The proportions in every 10,000 of population show a continuous rise at successive censuses, and that there is more blindness amongst males than females.

PROPORTIONS OF BLIND TO EVERY 10,000 PEOPLE.

	Persons.	Males.	Females.
1874	2·34	2·45	2·18
1878	2·56	2·42	2·73
1881	2·82	2·93	2·68
1886	3·22	3·65	2·70
1891	4·37	4·91	3·74
1896	4·90	5·69	4·01
1901	5·87	7·32	4·26

The proportion of the blind per 10,000 persons living in the past has been: for England, about 8·79; for Ireland, 11·30; for Scotland, 6·95; for Germany, 7·93; for France, 8·37; and for Italy, 7·63. For the Australian States the figures are: Victoria, 8·72; New South Wales, 6·59; Australian Continent, 7·38.

The number of the blind in quinquennial periods of age is stated for each sex. Of 297 males, 100 were under and 197 upwards of 50 years old. Of 156 females, 63 were under 50, and 93 over that age.

NUMBERS OF THE BLIND AT AGE-PERIODS.

	Persons.	M.	F.		Persons.	M.	F.
All ages	453	297	156	40 years to 45 years	18	11	7
				45 „ 50 „	22	10	12
Under 5 years ..	8	..	3	50 „ 55 „	23	16	7
5 years to 10 years	16	9	7	55 „ 60 „	45	32	13
10 „ 15 „	17	11	6	60 „ 65 „	37	22	15
15 „ 20 „	15	11	4	65 „ 70 „	74	53	21
20 „ 25 „	20	10	10	70 „ 75 „	46	28	18
25 „ 30 „	14	9	5	75 „ 80 „	36	25	11
30 „ 35 „	17	13	4	80 and upwards	29	21	8
35 „ 40 „	21	16	5				

Of the total number of the blind, 453 persons, there were 43 in regard to whom no information as to occupation is given on the household schedule, 71 (females) were returned as engaged in domestic duties, 15 persons as inmates of the blind institute, 10 as dependent relatives, 132 as of no occupation, 21 as labourers, 21 as farmers, 9 as farm labourers, 6 as dairy farmers, 5 as sheep-farmers, 8 as carpenters, 10 as pensioners, 6 of independent means, and the rest (96) of various occupations in small numbers each. A complete statement is added, in regard to which it must be remarked that many of the occupations are evidently the past occupations of persons whom blindness has prevented from continuing to work at their usual calling.

OCCUPATIONS (PAST OR PRESENT) OF THE BLIND.

	Persons.	Male. Under 20.	Male. Over 20.	Female. Under 20.	Female. Over 20.
Barrister (not in practice)	1	..	1	..	..
Surgeon	1	..	1	..	..
Teacher of the blind	2	..	2	..	..
School-teacher	1	..	1	..	..
Musician	3	..	3	..	..
Street musician	1	..	1	..	..
Organ-grinder	2	..	2	..	..
Commedian	1	..	1	..	..
Boarding-house keeper	2	..	2	..	..
Hotelkeeper	1	..	1	..	..
Domestic servant	1	..	..	..	1
Cook	1	..	1	..	..
Capitalist	2	..	2	..	..
Insurance agent	1	..	1	..	..
Proprietor of houses	4	..	4	..	..
Newsvendor	2	..	2	..	..
Butcher	1	..	1	..	..
Assistant butcher	2	..	2	..	..
Fish-hawker	1	..	1	..	..
Fruiterer	2	..	2	..	..
Grocer	3	..	3	..	..
Seed merchant	1	..	1	..	..
Hawker	1	..	1	..	..
Storekeeper	2	..	2	..	..
Commercial traveller	2	..	2	..	..
Cab proprietor	1	..	1	..	..
Mariner	1	..	1	..	..
Waterman	1	..	1	..	..
Lumper	3	..	3	..	..
Compositor	1	..	1	..	..
Piano-tuner	3	..	3	..	..
Basketmaker	4	..	4	..	..
Saddler	1	..	1	..	..
Shipwright	2	..	2	..	..
Cabinetmaker	1	..	1	..	..
Boot- and shoemaker	4	..	4	..	..
Stonemason	2	..	2	..	..
Carpenter	8	..	8	..	..
Plumber	1	..	1	..	..
Painter	1	..	1	..	..
Contractor	1	..	1	..	..
Labourer	21	..	21	..	..
Farmer	21	..	20	..	1
Farm labourer	9	..	9	..	..
Gardener	1	..	1	..	..
Market-gardener	2	..	2	..	..
Settler	1	..	1	..	..
Dairy-farmer	6	..	5	..	1
Sheep-farmer	5	..	4	..	1
Shepherd	1	..	1	..	..
Fisherman	1	..	1	..	..
Bushman	1	..	1	..	..
Gum-digger	3	..	3	..	..
Miner	1	..	1	..	..
Miner, coal	1	..	1	..	..
Miner, quartz	3	..	3	..	..
Miner, alluvial	4	..	4	..	..
Inspector of minerals	1	..	1	..	..
No occupation	132	11	80	2	39
Independent means	6	..	4	..	2
Pensioner	10	..	9	..	1
Annuitant	3	..	3	..	..
Domestic duties	71	..	..	3	68
Scholar, Government school	2	2	..	..	..
Scholar, private school	1	1	..	..	..
Receiving tuition at home	2	1	..	1	..
Dependent on relative	10	3	..	7	..
Inmate of Blind Institute	15	8	..	7	..
Occupation not stated	43	5	16	..	22
Totals	453	31	266	20	136

LUNACY.

The lunatics enumerated were 2,675 persons, 1,599 males and 1,076 females, nearly all of whom were inmates of the asylums for the insane in the colony. Departmental returns show 2,672 persons (including 21 Maoris) as the total number of inmates on the 31st December, 1900.

Comparison with the results of previous censuses shows a continually increasing proportion of lunatics to the population in respect of either sex, and that there is considerably more lunacy among the men than women.

LUNATICS.—PROPORTIONS PER 10,000 OF POPULATION.

	Persons.	Males.	Females.
Census 1874	19·93	23·28	15·48
" 1878	20·85	25·07	15·54
" 1881	22·86	27·30	17·43
" 1886	26·50	31·03	21·18
" 1891	27·82	31·28	23·92
" 1896	31·13	35·70	26·02
" 1901	34·47	39·23	29·19

The number of males who were lunatics was highest at the period 45–50 years, and the females at 40–45, as will be found by the following statement :—

LUNATICS.—NUMBERS AT QUINQUENNIAL AGE-PERIODS.

	Persons.	M.	F.
All ages..	2,675	1,599	1,076
Under 5 years	2	1	1
5 years to 10 years	5	3	2
10 " 15 "	19	11	8
15 " 20 "	43	22	21
20 " 25 "	114	63	51
25 " 30 "	186	108	78
30 " 35 "	245	141	104
35 " 40 "	257	145	112
40 " 45 "	312	176	136
45 " 50 "	333	213	120
50 " 55 "	296	177	119
55 " 60 "	298	191	107
60 " 65 "	244	139	105
65 " 70 "	162	109	53
70 " 75 "	88	60	28
75 " 80 "	35	21	14
80 years and upwards	22	11	11
Unspecified	14	8	6

The proportion of lunatics per 10,000 males living at the above age-periods was only 5·18 at 15–20 years, but had advanced to 59·67 at 35–40 years, and reached its maximum at the period 55–60, when the proportion was 139·30. In the case of females, the proportion rose to a maximum of 130·97 at 60–65.

In 1900 one person in every 288, exclusive of Maoris, in New Zealand was afflicted with lunacy.

IDIOCY.

The number of idiots of both sexes enumerated in the census was 105, against 144 in 1896 ; the proportion to 10,000 of population being 1·36 against 2·02 at the previous census. As with lunacy, the proportion of idiocy amongst the males (1·43 per 10,000) is higher than amongst the females (1·28).

SECTION XI.—METEOROLOGY.

TEMPERATURE, RAINFALL, ATMOSPHERIC PRESSURE, AND WIND, THROUGHOUT NEW ZEALAND, AS OBSERVED AT EIGHT STATIONS, FOR THE YEAR 1901.

(From Tables prepared by Sir James Hector.)

THE OBSERVATIONS WERE TAKEN AT 9.30 A.M.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest.	Wet Days.	Fall.		
Auckland (lat. 36° 50′ S.; long. 174° 50′ 40″ E.; alt. 125 ft.).	° Fahr.	° Fahr.	No.	Inches.	Inches.	
January	79·0	48·0	16	3·220	29·960	SW.
February	76·5	50·5	12	3·980	29·990	SW.
March	74·0	53·0	16	5·110	30·004	SW.
April	72·5	46·5	10	1·120	30·070	NE, SW, SE.
May	66·5	42·0	18	0·980	30·100	SW.
June	64·0	37·0	18	2·750	30·090	NE, SE.
July	59·0	38·0	26	9·140	29·790	NE, SW.
August	62·0	39·5	13	3·220	30·130	SW, NE.
September	64·0	45·0	12	0·850	30·170	SW, NE.
October	72·0	44·0	10	3·110	30·130	NE, SW, SE.
November	70·0	43·0	11	1.440	30·080	SW, S.
December	75·0	51·0	14	3·570	29·820	SW, NW, NE.
Rotorua (lat. 38° 9′ S.; long. 176° 15′ E.; alt. 990 ft.).						
January	91·0	35·0	12	3·610	30·060	W, N, SW.
February	85·0	41·5	10	5·590	30·210	N, NW.
March	80·0	37·5	10	3·780	30·150	SW.
April	76·0	31·5	12	1·240	30·260	SW, S.
May	70·0	28·0	5	0·680	30·190	SW, W.
June	61·0	29·0	17	5·280	30·300	N, SW.
July	61·0	26·0	16	6·920	29·820	SW, W.
August	66·0	27·0	12	8·220	30·270	SW.
September	66·0	33·0	13	3·060	30·310	N, SW, W.
October	77·0	29·0	8	2·980	30·290	N, NW.
November	78·5	34·0	6	1·200	30·280	SW, W.
December	80·0	38·0	15	8·040	29·960	SW, W.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest	Wet Days.	Fall.		
New Plymouth (lat. 39° 3′ 35″ S.; long. 174° 4′ 58″ E.; alt. 100 ft.	° Fahr.	° Fahr.	No.	Inches.	Inches.	
January	84·0	42·0	18	3·740	29·990	W, NE.
February	81·0	47·0	17	4·550	30·110	W, SW.
March	80·0	45·0	21	2·840	30·102	SE, N.
April	87·0	39·0	15	3·510	30·210	NW, SE.
May	88·0	34·0	25	3·415	30·160	SW, NW.
June	84·0	32·0	23	7·440	30·210	NE, S.
July	84·0	30·0	26	8·390	29·840	SE.
August	84·0	31·0	19	3·820	30·210	SE, SW.
September	86·0	37·0	20	4·850	30·250	NE, SW.
October	91·0	32·0	17	3·930	30·240	NE, SW.
November	92·0	36·0	19	3·350	30·150	SW, NW.
December	88·0	40·0	25	8·605	29·860	SW, NW, NE.
Wellington (lat. 41° 16′ 25″ S.; long. 174° 47′ 25″ E.; alt. 140 ft.).						
January	79·0	44·0	12	4·142	29·851	NW.
February	75·0	46·0	12	2·650	29·963	NW. N, SE.
March	73·5	45·0	15	2·046	29·997	S, NW.
April	74·0	37·0	11	2·346	30·059	NW.
May	66·0	36·0	11	1·943	29·977	NW.
June	68·0	32·0	17	4·470	30·042	NW, S.
July	58·0	30·0	20	5·496	29·762	S, NW.
August	59·3	32·0	13	3·550	30·085	NW, S.
September	68·5	39·0	17	5·319	30·081	NW, S.
October	65·0	40·5	14	3·480	30·053	NW.
November	78·5	38·0	15	2·180	29·966	NW, N, S.
December	75·5	44·0	18	3·935	29·430	NW, N, S.
Hokitika (lat. 42° 41′ 30″ S.; long. 170° 49′ E.; alt. 12 ft.).						
January	83·0	41·5	12	10·490	29·841	SW, NW.
February	80·5	46·0	11	8·690	29·984	SW.
March	69·0	41·0	11	9·500	29·960	SW, NW.
April	79·0	31·0	16	12·160	30·066	SW, NW.
May	67·0	32·0	19	14·260	30·022	SW, NW, E.
June	65·0	29·0	16	15·790	30·022	NW, E.
July	67·0	26·0	10	8·990	29·727	E.
August	59·0	29·0	18	9·490	30·105	SW, E.
September	64·5	35·0	19	11·240	30·104	SW, NW.
October	64·0	33·0	18	12·630	30·050	SW, NW.
November	65·0	39·0	20	9·140	30·003	SW, NW.
December	75·0	41·5	18	16·590	29·710	SW, NW.

Stations and Months.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	Prevailing Wind.
	Highest.	Lowest.	Wet Days.	Fall.		
Lincoln College, Canterbury (lat. 43° 32′ 16″ S.; long. 172° 38′ 59″ E.; alt. 65 ft.)	° Fahr.	° Fahr.	No.	Inches.	Inches.	
January	86·5	38·0	11	3·370	29·787	NE, SW.
February	83·0	39·0	11	1·485	29·911	NE, SW.
March	83·2	38·8	18	1·470	29·967	NE, SW.
April	81·6	28·6	11	2·090	29·977	NE, SW.
May	75·2	23·8	6	1·031	29·892	NE, SW.
June	72·9	21·1	7	0·860	30·070	NE, SW.
July	54·4	23·0	21	5·345	29·828	SW, NE.
August	71·0	23·6	9	0·835	30·051	NE, SW.
September	72·5	29·0	9	0·455	30·003	SW, NE.
October	85·1	32·4	4	0·910	29·891	NE, NW.
November	81·9	34·9	10	1·420	29·837	NW, NE, SE, SW.
December	81·0	41·2	17	2·745	29·657	SW, NE, NW.
Dunedin (lat. 45° 52′ 11″ S.; long. 170° 31′ 7″ E.; alt. 300 ft.).						
January	82·0	38·0	16	7·640	29·718	SW, W.
February	83·0	43·0	16	4·642	29·835	W, SW.
March	75·0	38·0	14	1·758	29·892	NE, SW.
April	75·0	33·0	14	2·200	29·875	SW.
May	64·0	35·0	16	4·394	29·782	SW.
June	66·0	32·0	5	1·456	29·599	N, NE, SW.
July	50·0	25·0	14	3·606	29·278	SW.
August	60·0	30·0	16	2·962	29·944	SW, NE.
September	67·0	34·0	12	1·226	29·884	NE, W.
October	78·0	32·0	10	1·384	29·791	W, NE.
November	76·0	34·0	16	2·642	29·711	SW, W.
December	70·0	38·0	24	3·742	29·625	N, NE, SW.
Chatham Islands (lat. 43° 52′ S.; long. 176° 42′ W.; alt. 100 ft.).						
January	71·0	40·0	14	5·240	29·680	NW, SE, SW.
February	68·0	43·0	9	1·610	29·790	NW, SW.
March	66·0	39·0	15	2·170	29·450	SE, SW.
April	65·0	39·0	14	2·570	29·850	N, SW.
May	63·0	35·0	17	1·690	29·640	SW, N.
June	59·0	34·0	15	1·380	29·960	N, SE.
July	55·0	31·0	24	2·740	29·520	SW.
August	56·0	31·0	21	3·350	29·760	SW, S.
September	58·0	32·0	15	2·520	29·880	SW, N, NW.
October	63·0	35·0	10	0·890	29·830	SW, N, NW.
November	67·0	34·0	18	2·260	29·680	SW, NW.
December	70·0	40·0	17	3·770	29·580	E, NW.

EIGHT STATIONS: COMPARATIVE TABLE; YEAR 1901.

Stations.	Temperature in Shade.		Rainfall.		Mean Height of Barometer.	*Prevailing Wind.
	Highest, and Date.	Lowest, and Date.	Days on which Rain fell.	Greatest Fall, and Date.		
	° Fahr.	° Fahr.	No.	Inches.	Inches.	
Auckland	79·0, 6 Jan.	37·0, 23, 25 June	176	1·590, 3 Oct.	30·028	SW, NE, NW.
Rotorua	91·0, 8 Jan.	25·0, 7 July	136	3·350, 11 Aug.	30·175	SW, N, W.
New Plymouth ...	92·0, 11 Nov.	30·0, 7 July	245	3·480, 19 Dec.	30·111	SE, SW, NE.
Wellington	79·0, 19 Jan.	30·0, 5 July	175	1·670, 27 Sept.	29·938	NW, S.
Hokitika	83·0, 22 Jan.	26·0, 7 July	188	4·350, 8 Dec.	29·974	SW, NW.
Lincoln	80·5, 9 Jan.	21·1, 25 June	134	1·680, 24 July	29·906	NE, SW, NW.
Dunedin	83·0, 14 Feb.	25·0, 1 July	173	1·710, 26 Jan.	29·744	SW, NE, W.
Chatham Islands ...	71·0, 6 Jan.	31·0, 12, 22 July 9 Aug.	189	1·500, 13 Jan.	29·718	SW, N, NW.

The following table, compiled from information published in the Statistical Abstract for the Colonial Possessions of the United Kingdom, shows the shade temperature for each month in New Zealand and other British States and Colonies. The figures given are the means of four years (H signifies highest, and L lowest):—

British Possessions (Stations and Height in Feet above Sea Level where known).	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Year.	
	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.	H.	L.
New Zealand—	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.
Wellington (140)	78	45	78	47	76	44	70	43	66	38	62	34	59	33	62	34	65	37	69	41	74	33	75	44	78	33
Queensland—																										
Brisbane (130)	92	64	93	63	91	61	85	54	80	50	76	42	75	39	78	41	85	46	91	50	94	57	97	61	97	39
New South Wales—																										
Sydney (155)	92	59	89	58	84	59	79	51	72	48	67	44	63	39	70	42	77	45	88	48	87	54	94	57	94	39
Victoria—																										
Melbourne (91)	101	48	99	47	99	45	86	40	74	37	64	37	62	32	68	34	74	34	81	40	94	44	96	45	101	32
South Australia—																										
Adelaide (140)	108	49	106	50	100	48	89	45	78	40	67	38	65	36	74	3	79	41	86	41	96	45	101	48	108	36
Western Australia—																										
Perth (47)	107	50	102	53	98	52	96	57	81	40	70	38	70	37	73	38	80	42	83	42	93	48	100	51	107	37
Tasmania—																										
Hobart (160)	91	45	94	45	93	44	75	38	71	37	61	34	59	33	66	33	72	35	77	35	92	40	86	43	94	33
Natal—																										
Durban (150)	99	63	95	61	94	60	94	58	89	52	86	49	88	48	91	49	96	50	91	53	97	57	98	59	99	49
Cape Town—																										
Royal Observatory (37)	94	54	90	51	92	49	86	45	80	42	76	39	74	37	76	37	83	39	86	44	89	48	90	52	94	37
Hongkong—																										
Observatory (110)	73	47	78	46	77	49	84	58	89	68	91	73	91	74	91	74	92	70	90	66	82	55	79	49	91	46
Straits Settlements—																										
Singapore (30)	88	70	90	70	91	71	91	73	90	73	90	72	90	72	89	72	89	71	89	71	89	71	89	70	91	70
Mauritius—																										
Royal Alfred Observatory (179) ...	84	69	84	71	84	70	82	70	80	62	77	60	75	59	75	59	77	62	80	62	82	66	84	68	84	59
Canada—																										
Toronto (350)	47	-3	45	-3	51	6	71	22	78	31	86	44	88	46	89	47	82	41	71	27	56	13	45	-1	89	-3
Montreal (187)	45	-14	42	-13	44	0	69	24	81	32	87	43	88	50	86	50	81	39	70	27	59	11	43	-11	88	-13
St. John (N.B.) (116)	49	-7	46	-7	47	4	62	22	69	33	81	42	79	49	77	48	73	37	60	26	56	16	49	-3	81	-7
Halifax (122)	50	-1	46	-3	50	10	63	22	73	32	83	39	84	48	84	49	80	36	69	29	60	21	51	3	84	-3
Charlottetown, Prince Edward Island (38)	47	-6	43	-9	47	5	60	20	70	31	77	39	80	49	79	49	75	39	66	30	58	19	47	1	80	-9
Winnipeg, Manitoba (764) ...	34	-37	32	-37	49	-25	76	8	82	20	90	35	87	40	91	34	86	30	73	17	53	-16	39	-29	91	-37
Victoria, British Columbia (10) ...	51	14	55	22	60	30	67	29	73	38	76	39	79	43	76	44	71	38	64	35	55	30	51	23	79	14
St. John's, Newfoundland (125) ...	48	-6	50	-8	50	11	61	15	71	27	76	38	81	41	79	42	78	33	65	24	62	19	51	9	81	-8
Barbados—																										
Joes River (430)	81	67	81	67	83	69	84	70	84	71	85	72	84	70	85	70	85	71	85	71	84	70	83	69	85	67
Bahamas—																										
Military Hospital	77	63	79	68	79	67	84	69	89	72	88	73	89	78	89	73	87	75	86	77	82	70	77	67	89	63
Jamaica—																										
Kingston (60)	91	63	90	63	90	62	91	68	91	70	92	71	95	71	93	73	92	70	93	69	91	67	90	63	95	62
Trinidad (130)	86	67	87	68	88	69	88	70	89	70	86	71	86	71	86	70	89	70	88	70	87	70	85	69	89	67

SECTION XII.—THE MAORI POPULATION.

THE census of the Maori population—that is, full-blooded Maoris, with all half-castes living as members of a Native tribe—was taken under the supervision of the officers of the Justice Department in the latter part of February, 1901. The enumeration of the Natives cannot be effected for one particular night, as is done with Europeans, but it is done as quickly and thoroughly as is possible under the circumstances existing.

The enumeration was made to state the names of the Natives in the Sub-Enumerator's books, besides information as to sex, age, principal tribe, sub-tribe, or hapu to which belonging, and particulars as to extent of cultivations owned individually or communally, with live stock.

Enumerators for the Maori census were directed to report on the health of the Natives, which is stated to have been generally good—that is, no epidemic disease was observed, though occasional outbreaks of influenza, fevers, &c., had happened since 1896.

The departmental report of 1st June, 1901, comments thus :—

As a knowledge of sanitary laws increases among the Maoris it may be expected that certain causes of disease will gradually disappear. But it is useless to expect the social habits of a people to conform to another standard all at once. While it it true that social conditions are susceptible of almost infinite modification, it is equally true that such modification can occur only after long periods of time. . . .

The diffusion of knowledge must tend to uplift the Maoris. The transforming powers of education and association are at work, and must in time have their effect. The village schools are steadily improving the general standard of knowledge among the Maori people as a whole, while the higher schools turn out a number of intelligent young fellows who want only the opportunity to show the value of the training they have received. Suitable openings in the public service are limited, but the Government has displayed a sympathetic regard for deserving Maori youths wherever possible. There are now two Native medical students attending the Otago University, and the recent appointment of Dr. Pomare as Native Health Officer is expected to do much good in the direction of sanitary and social reform. Much also is hoped from the Maori Councils Act of last session, which confers on the Natives a limited measure of local self-government, and enables them to regulate and control habits and customs which are harmful alike to the individual and the community. Many of the older chiefs, as well as the educated younger generation, are showing a very intelligent interest in the reform movement, but they want to be shown what to do and how to do it. . . .

The reports of the Enumerators and Sub-enumerators contain much of interest. Crime does not prevail in any marked degree. The Natives as a whole are becoming more and more temperate every year. The drunken orgies that were once common are in a great measure things of the past. In several of the reports reference is made to their adoption of the European style of living; some are sheep-farmers, others cultivate their land, while others again engage in various forms of remunerative labour. Every year the spread of settlement brings them into closer touch with their pakeha neighbours, and subjects them to the influence of European example. Their ultimate destiny must remain a matter of speculation.

The proportion of the Maori population to that of European

descent was in the years 1896 and 1901 one Maori to every eighteen Europeans. It is in the North Island that the proportion of Maoris to Europeans is by far the highest, being one in every ten, against one in one hundred and eighty-nine for the South and Stewart Islands.

The percentage of each race to the population was:—

	European Per Cent.	Maori Per Cent.
North Island	90·56	9·44
Middle Island	99·50	0·50
Stewart Island	70·83	29·17
Chatham Islands	49·52	50·48

In February, 1901, the number of Maoris on the principal islands of New Zealand was as shown hereunder:—

	Maoris.			Half-castes living as Members of Maori Tribes (included in the preceding Numbers).		
	Persons.	Males.	Females.	Persons.	Males.	Females.
North Island	40,715	21,919	18,796	2,517	1,379	1,138
Middle Island	1,909	1,022	887	551	288	263
Stewart Island ..	112	66	46	13	5	8
Chatham Islands—						
Maoris	180	90	90	34	14	20
Morioris	31	15	16	18	8	10
Maori wives living with European husbands ..	196	..	196	..	..	..
Totals ..	43,143	23,112	20,031	3,133	1,694	1,439

Besides the half-castes included in the above table, there were 2,407 half-castes (males, 1,188; females, 1,219) living with and enumerated as Europeans at the time of the census.

The above total of 43,143 shows an increase on the population as enumerated in 1896 of 3,289 persons. But the figures for 1896 showed a large decrease, and the increase for the period 1896–1901 is too great to be taken as an absolute fact—at least to the full extent shown. That some degree of increase has recently taken place is highly probable, although averaging the results of the different enumerations of Maoris made since 1878 conveys the idea of a stationary population.

MAORI POPULATION AS ENUMERATED, 1874 TO 1901.

	Persons.	Increase.	Decrease.
1874 (first census)	45,470	..	..
1878	43,595	..	1,875
1881	44,097	502	..
1886	41,969	..	2,128
1891	41,993	24	..
1896	39,854	..	2,139
1901	43,143	3,289	..

HALF-CASTES.

The half-caste population consists of those who live as members of Maori tribes, and others living with and counted as Europeans in the census. Adding the numbers of the two kinds gives the following figures for three censuses:—

Census.	Half-castes living as Members of Maori Tribes. Persons.	Half-castes living as Europeans. Persons.	Total Half-caste Population. Persons.
1891	2,681	2,184	4,865
1896	3,503	2,259	5,762
1901	3,133	2,407	5,540

Here the half-castes who were living as members of tribes are shown as decreasing in number since 1896, while those living as Europeans increased at both periods under review.

Proportions at different Age-groups.

It has been stated that the increase shown by the census of 1901 in the Maori population can scarcely be considered a certainty to the full degree exhibited. The proportions of the people under and over fifteen years are now given for six successive census years, and the figures for 1896 and 1901 tend to show a growing proportion at the earlier ages.

Proportions per 100 Persons Living.—Maoris.

	Males.		Females.	
	Under 15 Years.	Over 15 Years.	Under 15 Years.	Over 15 Years.
1901 ..	35·75	64·25	37·89	62·11
1896 ..	35·28	64·72	36·82	63·18
1891 ..	33·22	66·78	35·22	64·78
1886 ..	31·64	68·36	33·56	66·44
1881 ..	33·65	66·35	34·64	65 36
1878 ..	32 00	68·00	31·63	68·37

The proportions per cent. under 15 years of the young people of either sex are somewhat different from those found in the European population, viz.: Males under 15, 32·24; over 15 years, 67·76; and females under 15, 34·66; and over 15 years, 65·34.

Tribes.

Of the principal tribes residing in the North Island, the Ngapuhi again shows the greatest number of persons, and the next in importance was Ngatikahungunu. Waikato and Ngatiporou had over four thousand persons living. The Arawa had over three thousand, Ngatiraukawa, Rarawa, and Wanganui between two and three thousand each. A complete statement is given:—

Principal Tribes in the North Island.

	Persons.		Persons.
Ngapuhi ..	.. 6,359	Urewera ..	.. 1,094
Ngatikahungunu ..	.. 5,064	Ngaiterangi ..	.. 913
Waikato ..	.. 4,457	Ngatiruanui ..	.. 853
Ngatiporou ..	.. 4,152	Whanau-a-Apanui	.. 711
Arawa	.. 3,547	Taranaki ..	.. 639
Rarawa	.. 2,842	Whakatohea ..	.. 598
Whanganui ..	.. 2,327	Ngatiwhatua ..	.. 356
Ngatiraukawa ..	.. 2,084	Unspecified ..	.. 98
Ngatiawa ..	.. 1,701		40,715
Ngatimaniapoto ..	.. 1,570		
Ngatimaru ..	.. 1,350		

Principal Tribes in the South Island.

	Persons.
Ngatikahungunu	1,549
Ngatiawa	211
Waikato	85
Others	64
	1,909

Principal Tribe in Stewart Island.

	Persons.
Ngatikahungunu	112

Principal Tribes in Chatham Islands.

	Persons.
Ngatiawa	180
Moriori	31
	211

The total number of Maoris enumerated in each county is added, as showing the localisation of the Natives throughout the colony. Further particulars as to sex, age, &c., will be found in the complete tables belonging to Appendix B of the Census volume:—

Counties.	Persons.	Counties.	Persons.
Mongonui	2,093	Rangitikei	459
Whangaroa	743	Oroua	433
Hokianga	2,330	Pohangina	3
Bay of Islands	2,235	Manawatu	252
Hobson	984	Horowhenua	1,035
Whangarei	739	Wairoa	1,991
Otamatea	186	Hawke's Bay	1,605
Rodney	173	Waipawa	403
Waitemata	171	Patangata	181
Eden	223	Pahiatua	24
Great Barrier Island ..	37	Wairarapa North ..	337
Waiheke Island	70	Wairarapa South ..	476
Manukau	734	Hutt	264
Coromandel	565	Sounds	263
Thames	774	Marlborough	79
Ohinemuri	630	Kaikoura	78
Piako	409	Collingwood	22
Waikato	983	Waimea	107
Waipa	226	Buller	23
Raglan	1,499	Westland	60
Kawhia	1,649	Ashley	188
West Taupo	1,130	Selwyn	56
East Taupo	651	Akaroa	293
Rotorua	971	Levels and Geraldine ..	134
Tauranga	1,301	Waimate	65
Whakatane	3,170	Waitaki	117
Waiapu	2,474	Waikouaiti	168
Cook	1,803	Peninsula	92
Clifton	420	Taieri	42
Taranaki	1,020	Clutha	32
Stratford	43	Southland	2
Hawera	853	Wallace	98
Patea	274	Stewart Island	112
Waitotara and Wanganui ..	1,689	Chatham Islands	211

SECTION XIII.—LAW AND CRIME.

Civil Cases.

Sittings of the Supreme Court are held for trial of civil cases at Auckland, Gisborne, New Plymouth, Napier, Wellington, and Wanganui, in the North Island; and at Blenheim, Nelson, Hokitika, Christchurch, Timaru, Oamaru, Dunedin, and Invercargill, in the Middle Island.

The number of writs of summons issued in the Supreme Court in 1900 was 414, against 511 in 1899, 426 in 1898, 460 in 1897, 529 in 1896, and 511 in 1895. The number of civil cases tried decreased from 157 in 1899 to 145 in 1900. Of these last, 39 were tried before common juries, 10 by special jury, and 96 by Judge without jury. The total of amounts for which judgments were recorded in 1900 was £31,435. There were 42 writs of execution issued during the year.

Thirty-four cases were commenced at seventeen District Courts in 1900. Four of these cases were tried before juries, and 15 before a Judge only, making a total of 19 cases tried. Fifteen cases lapsed or were discontinued. The total of amounts sued for was £6,269, and judgments were recorded for £1,291. Before the Magistrates' Courts 19,816 cases were tried, against 23,095 in 1899; the aggregate sum sued for during 1900 being £286,719, and the total for which judgment was given £167,224.

Court of Appeal.

Three Crown (criminal) cases were reserved from the superior Courts to be brought before the Court of Appeal in 1900. In two cases the convictions were affirmed, and in one the conviction was quashed. There were appeals from 27 civil cases, of which 13 were allowed and 14 dismissed. Judgments were given on 5 other cases removed to the Court of Appeal.

Bankruptcy.

The petitions in bankruptcy during 1900 numbered 304, of which 268 were made by debtors and 36 by creditors. This number is 85 fewer than the number of petitions for the preceding year.

Of the bankruptcies in 1900: in 11 cases the liabilities were under £50; in 73, from £50 to £100; in 84, from £100 to £250; in 70, from £250 to £500; in 41, from £500 to £1,000; in 13, from £1,000 to £2,000; in 9, from £2,000 to £5,000; in 3, £5,000 and upwards.

The following gives the number of petitions, the total amount of the unsecured assets, the amount of debts proved, and the amount paid in dividends and preferential claims for the years 1896 to 1900 :—

Year.	No. of Petitions in Bankruptcy.	Debtors' Statements of Assets, excluding Amounts secured to Creditors.	Amounts realised by Official Assignees.	Amount of Debts proved.	Amounts paid in Dividends and Preferential Claims.
		£	£	£	£
1896 ..	412	115,455	71,712	256,870	37,492
1897 ..	415	73,466	40,942	133,344	45,015
1898 ..	407	90,068	45,474	285,154	30,994
1899 ..	389	59,434	34,268	158,931	30,084
1900 ..	304	77,689	53,415	141,800	37,411

A special article on the present bankruptcy law of New Zealand was printed in the Year-book of 1894. Reference is made in it to a mode of private assignment, which has come into such frequent use as to militate against conclusions being drawn from a comparison of the figures above given.

Divorce.

In 1898 the Legislature of New Zealand passed a Divorce Act, and the signification of Her Majesty's assent thereto was duly notified by His Excellency the Governor in a Proclamation dated the 1st April, 1899.

This Act places persons of either sex practically on an equality as regards petitions for dissolution of marriage; the same grounds, in substance, for a decree of divorce applying to man or woman.

Besides this important alteration of the law, the grounds for divorce are extended as under :—

1. Adultery, on either side.
2. Wilful desertion continuously during five years or more.
3. Habitual drunkenness on the part of husband, along with failing to support wife; or drunkenness and neglect, with unfitness to discharge household duties on the part of the wife.
4. Conviction, with sentence of imprisonment or penal servitude for seven years or upwards, for attempting to take life of petitioner.

Every decree for dissolution of marriage is in the first instance to be a decree *nisi*, not to be made absolute till after the expiration of such time, being not less than three months from the pronouncing thereof, as the Court shall by order from time to time direct.

The petitioner need not necessarily move to make absolute any decree *nisi* that may be pronounced.

A decree for a judicial separation may be obtained either by the husband or wife on the ground of adultery, or of cruelty, or of desertion without cause for a period of two years.

The petitions in 1900 under "The Divorce and Matrimonial Causes Act, 1867," were 116 in number, being 3 in excess of those for 1899: 111 were for dissolution of marriage, and 5 for judicial separation; 85 decrees for dissolution of marriage were granted, and 3 for judicial separation. The proceedings under the Act for the years 1896 to 1900, were as follows:—

Year.	Petitions for		Decrees for	
	Dissolution of Marriage.	Judicial Separation.	Dissolution of Marriage.	Judicial Separation.
1896	55	6	36	2
1897	48	10	33	1
1898	51	13	32	2
1899	112	1	46	16
1900	111	5	85	3

The new Act has evidently operated in the direction of increasing largely (but probably in the main temporarily) the number of petitions and decrees for dissolution of marriage or judicial separation.

The proportion of petitions and decrees for dissolution of marriage to the number of marriages was up till 1898 higher in New Zealand than in England and Wales, but lower than in New South Wales or Victoria. The full effect of the operation of the new law in New Zealand has now, however, to be experienced.

As early as 1889 an Act was passed in Victoria to allow of divorces being granted for wilful desertion, habitual drunkenness with cruelty or neglect, imprisonment under certain circumstances of either party, and adultery on the part of the husband. This multiplication of the causes for divorce has largely increased the proportion of decrees in that State.

An Act of a similar tenor was passed in New South Wales in 1892, and brought into working in August of that year, under which, and an amending Act of 1893, in addition to adultery since marriage on the part of the wife, and adultery and cruelty on the part of the husband, petitions for divorce can now be granted in that State on any of the following grounds:—

Husband *v.* wife: Desertion for not less than three years; habitual drunkenness for a similar period; refusing to obey an order for restitution of conjugal rights; being imprisoned under a sentence of three years or upwards; attempt to murder or inflict grievous bodily harm, or repeated assaults on him within one year previously.

Wife *v.* husband: Adultery, provided that at the time of the institution of the suit the husband is domiciled in New South Wales; desertion for not less than three years; habitual drunkenness for the same period; refusing to obey an order

for restitution of conjugal rights; being imprisoned for three years or upwards, or having within five years undergone various sentences amounting in all to not less than three years; attempt to murder, or assault with intent to inflict grievous bodily harm, or repeated assaults within one year previously.

To entitle either party to seek relief on these grounds, he or she must have been domiciled in the State at the time of instituting the suit for three years or upwards, and should not have resorted to the State for the purpose of the suit. When a wife seeks for a decree on the ground of three years' desertion, if she was domiciled in New South Wales when the desertion commenced, she shall not be deemed to have lost her domicile by reason of her husband having thereafter acquired a foreign domicile.

The divorces and separations in New South Wales and Victoria since the divorce law has been altered in the direction of increasing the grounds for decrees are as under. With these are given the figures for New Zealand under the old law up to 1898, and according to the new Act for 1899 and 1900. The figures for New South Wales tend to show that on altering the law there was a large accumulation of cases to get rid of, which increased the number of decrees to a degree which was not subsequently maintained.

	New South Wales.		Victoria.		New Zealand.	
Year.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
1893 ..	306	9 ..	85	7 ..	25	1
1894 ..	313	14 ..	81	2 ..	20	4
1895 ..	301	11 ..	85	.. ..	18	5
1896 ..	234	8 ..	106	2 ..	36	2
1897 ..	246	13 ..	117	.. ..	33	1
1898 ..	247	17 ..	87	.. ..	32	2
1899* ..	..	.. ..	..	.. ..	46	16
1900* ..	..	.. ..	..	.. ..	85	3

* Act of 1898 in force in New Zealand.

CRIMINAL CASES.

Charges before Magistrates.

The number of charges heard before the Magistrates' Courts in 1900 was 25,045. Repeated charges against the same person are counted as distinct. Of the charges in 1900, 355 were against persons of the aboriginal native race, a decrease of 66 on the number for the previous year.

If the Maoris be excluded, the number of charges in 1900 is found to have been 24,690, an increase of 2,016 upon the number for 1899; and the proportion per 1,000 of population was 32·34, against 30·23 in 1899.

The figures, both numerical and proportional, covering a period of nineteen years are subjoined:—

CHARGES BEFORE MAGISTRATES.

Year.	Number.	Proportion per 1,000 of Mean Population.	Year.	Number.	Proportion per 1,000 of Mean Population
1882	22,108	43·41	1897	19,949	27·65
1885	22,709	39·61	1898	22,234	30·19
1888	18,829	30·88	1899	22,674	30·23
1891	17,189	27·29	1900	24,690	32·34
1894	17,353	25·55			

Summary Convictions, and Convictions in Superior Courts.

The summary convictions in 1900 numbered 19,242, including 253 Maoris. 773 persons, 27 of whom were Maoris, were committed for trial at the Supreme and District Courts, an increase of 63 on the number committed in 1899.

Dealing with the summary convictions, and convictions in the superior Courts, for all offences, the figures for 1891 and onwards (excluding the Maoris) are:—

Years.	Summary Convictions. Number.	Summary Convictions. Proportion per 1,000 of Mean Population.	Convictions in Superior Courts. Number.	Convictions in Superior Courts. Proportion per 1,000 of Mean Population
1891—				
Offences against the person	751	1·19	31	0·05
Offences against property ..	1,312	2·08	141	0·23
Other offences	10,988	17·45	42	0·07
Totals	18,051	20·72	214	0·35
1894—				
Offences against the person	724	1·07	36	0·05
Offences against property ..	1,284	1·89	199	0·29
Other offences	10,605	15·61	65	0·10
Totals	12,613	18·57	300	0·44
1897—				
Offences against the person	781	1·08	49	0·07
Offences against property ..	1,412	1·96	240	0·33
Other offences	12,682	17·57	14	0·02
Totals	14,875	20·61	303	0·42
1899—				
Offences against the person	678	0·90	79	0·11
Offences against property ..	1,549	2·07	273	0·36
Other offences	15,059	20·08	24	0·03
Totals	17,286	23·05	376	0·50
1900—				
Offences against the person	724	0·95	79	0·10
Offences against property ..	1,476	1·93	271	0·35
Other offences	16,789	21·99	19	0·02
Totals	18,989	24·87	369	0·47

Including 22 Maoris, the convictions in the superior Courts numbered 391 (persons). Particulars of sentences for these higher Courts, and of the punishments consequent on summary convictions in the lower Courts, are appended in two tables:—

TABLE showing the Sentences of Criminals Tried and Convicted in the Supreme and District Courts during Five Years.

Punishments.	1896.	1897.	1898.	1899.	1900.
Death	..	2	3	..	1
Imprisonment with or without hard labour ..	253	235	286	306	286
Fined	1	3	19	2	2
Imprisonment with whipping	..	..	2	2	2
Released under "The First Offenders' Probation Act, 1886"	43	63	50	61	74
Held to bail, or awaiting pleasure of Court ..	13	12	21	12	25
Sent to lunatic asylum	1	1	3	..	..
Sent to industrial school	..	..	2	..	1
Totals	*311	†316	‡386	§383	‖391

* Including 19 Maoris. † Including 12 Maoris. ‡ Including 35 Maoris. § Including 7 Maoris. ‖ Including 22 Maoris.

TABLE showing the Punishments inflicted consequent on Summary Convictions during Five Years.

Punishments.	1896.	1897.	1898.	1899.	1900.
Fine	6,425	6,821	8,149	8,229	9,206
Fine and imprisonment	..	5	..	..	..
Fine and order made	8	..	..	..	..
Fine and recognisance	4	..	..	..	..
Imprisonment in lieu of fine ..	1,552	1,409	1,410	1,762	1,895
Imprisonment and whipping ..	..	1	..	..	..
Peremptory imprisonment ..	1,534	1,579	1,616	1,683	1,723
Recognisance	..	123	111	118	121
Whipping	7	28	18	28	15
Other	4,619	4,909	5,338	5,466	6,029
Totals	14,149	14,875	16,642	17,286	18,989

N.B.—Maoris have been excluded from this table.

Drunkenness.

During the five years, 1896 to 1900 inclusive, the consumption of beer in the colony per inhabitant would seem to have increased, the proportion having been 7·5 gallons in the earlier year, against 8·7 gallons in the later one. Excluding the Maoris, the same result is found to obtain, the figures being 7·9 for the year 1896 and 9·2 for 1900. Wine and spirits also show an increase in the consumption per head of population.

The following calculations are made to show the results, including and excluding Maoris :—

CONSUMPTION OF BEER, WINE, AND SPIRITS PER HEAD OF POPULATION (INCLUDING AND EXCLUDING MAORIS).

	Including Maoris.			Excluding Maoris.		
	Beer. Gal.	Wine. Gal.	Spirits. Gal.	Beer. Gal.	Wine. Gal.	Spirits. Gal.
1896	7·453	0·133	0·605	7·873	0·141	0·639
1897	7·790	0·138	0·628	8·220	0·146	0·663
1898	7·995	0·139	0·634	8·427	0·146	0·668
1899	8·150	0·141	0·653	8·583	0·148	0·687
1900	8·696	0·145	0·684	9·150	0·152	0·720

The actual quantities of beer, wine, and spirits used in the colony were, for the five years :—

	Beer for Consumption. Gals.	Wine for Consumption. Gals.	Spirits for Consumption. Gals.
1896 ..	5,565,040	99,473	451,679
1897 ..	5,931,550	105,060	478,136
1898 ..	6,204,700	107,595	491,846
1899 ..	6,437,140	111,049	515,384
1900 ..	6,986,900	116,188	549,932

Excluding Maoris, the proportion of convictions for drunkenness per 1,000 of population was 9·18 in 1890, diminishing to 6·60 in 1895, 6·82 in 1896, 7·01 in 1897, 7·41 in 1898, and 8·26 in 1899, but increasing to 9·50 in 1900. The number of convictions to which the proportions for the years 1896 to 1900 relate were as under :—

Year.	Number.	Year.	Number.
1896	4,822	1899	6,194
1897	5,060	1900	7,252
1898	5,458		

The totals of charges for drunkenness for the same years were :—

Year.	Number.	Year.	Number.
1896	4,916	1899	6,279
1897	5,156	1900	7,319
1898	5,559		

Among the New-Zealand-born population of European descent there is evidence of less drunkenness than among persons who have come to the colony from abroad. At the census of 1901, out of the total population of New Zealand over 15 years of age, 51·85 per cent. were found to have been born here; while the proportion of the convictions for drunkenness of New-Zealand-born Europeans to the total convictions was in the year 1900 about 17 per cent. only.

The prison statistics show for some years back the number of distinct prisoners received into gaol after being convicted of drunkenness. The figures for the years 1889–1900 are as follow (readmissions of the same person not counted) :—

DISTINCT PRISONERS CONVICTED OF DRUNKENNESS RECEIVED INTO GAOL.

Year.	Number.	Year.	Number.
1889	802	1895	469
1890	808	1896	515
1891	694	1897	486
1892	638	1898	520
1893	619	1899	610
1894	457	1900	674

Here the decrease proceeds rapidly and uniformly from year to year until the year 1895, after which the figures rise somewhat. But conclusions cannot be drawn so safely from these prisons statistics as from the convictions for drunkenness previously stated, because the punishment is more often by fine than imprisonment. The convictions showed numbers rising from year to year, but along with the increase in the population of the colony.

In Australia the consumption per head of alcoholic liquors is greater than it is here. The average for three years, according to Mr. Coghlan, is given in the "Seven Colonies of Australasia," and quoted below :—

	Spirits. Gal. Per Head.	Wine. Gal. Per Head.	Beer. Gal. Per Head.
New South Wales	0·73	0·66	9·58
Victoria	0·72	1·94	11·76
Queensland	0·98	0·55	11·58
South Australia	0·39	2·26	8·95
Western Australia	1·85	1·07	23·84
Tasmania	0·39	0·09	7·33
New Zealand	0·65	0·14	8·18

In each of these States, with the exception of Tasmania and South Australia, charges for drunkenness are, in proportion to population, far more numerous than in New Zealand. The order of the States for the year 1898 in this respect is, to quote from the same authority, as under :—

CHARGES OF DRUNKENNESS IN PROPORTION TO POPULATION.

Western Australia	18·79 per 1,000
Queensland	15·28 "
New South Wales	14·67 "
Victoria	11·82 "
New Zealand	7·55 "

"The Inebriates Institutions Act, 1898."

Under this law, the Governor in Council may direct that any building or establishment which is the property of the Crown shall be an institution for inebriates; and he may appoint superintendents, with other officers.

Power is also given to make regulations for the management, supervision, and inspection of these institutions, any of which may be separated into two divisions, with different scales of accommodation, and fees to be paid by patients.

An inebriate may himself make application to a Judge or Magistrate for an order committing him to an institution. Or, if the husband, wife, or any relation or friend of any inebriate applies, the Judge or Magistrate may summon the inebriate to show cause why he should not be committed; when, if necessary, he may be compulsorily dealt with.

There are penalties for improper treatment of patients, and a patient is also liable if misconducting himself. It is also enacted that, during the continuance of an order, an escaped inebriate may be retaken.

A home has been established at Waitati, near Seacliff.

Crime amongst Maoris.

The Native population of the colony has hitherto been regarded as stationary, and comparisons of the numbers of summary convictions by the higher and lower Courts are given. The number for 1897 is swelled by 108 persons convicted of trespass. The figures relating to the convictions by the superior Courts are small and fluctuating, the proportionately large increase in 1898 being caused by the inclusion of sixteen convicted of conspiring to prevent the collection of taxes.

SUMMARY CONVICTIONS OF MAORIS.

Year.	Number.	Year.	Number.
1891	298	1896	332
1892	293	1897	450
1893	253	1898	349
1894	321	1899	300
1895	316	1900	253

CONVICTIONS OF MAORIS IN SUPERIOR COURTS.

Year.	Convictions.	Number of Persons convicted.
1891	7	7
1892	16	15
1893	13	12
1894	25	24
1895	17	15
1896	19	19
1897	16	12
1898	21	35
1899	8	7
1900	22	22

Prisoners in Gaol.

The total number of prisoners received in the different gaols of the colony during the year 1900 was 3,911, including persons awaiting trial but not convicted within the year, and counting as distinct persons repeated admissions of the same person, as well as transfers from gaol to gaol of convicts undergoing sentence. In 1899 the number received was 3,774, so that the figures for 1900 show an increase of 137. Of 3,911 admissions for 1900, 54 were for debt, and 57 on account of lunacy; while 130 were Maoris imprisoned for various offences. If the debtors, lunatics, and Maoris be excluded, the number of persons received into gaol is reduced to 3,670, against 3,534 in 1899.

The number of persons in gaol (including Maoris) at the end of the year 1900 was only 2 more than in 1899, notwithstanding the increase of population:—

PRISONERS IN GAOL (31ST DECEMBER).

Year.	Undergoing Sentence.	Debtors and Lunatics	On Remand and awaiting Trial.	Total.
1889	611	3	19	633
1891	494	4	36	534
1893	463	6	33	502
1895	531	5	46	582
1897	623	..	51	674
1899	508	..	58	566
1900	527	..	41	568

Of the prisoners previously convicted received in 1900, 354 men and 38 women had been convicted once; 217 men and 26 women twice; 1,018 men and 458 women three or more times: making a total of 1,589 men and 522 women.

Besides the returns from the Prisons Department, a separate card for each admission is furnished for every gaol. Such cards as show convictions are arranged alphabetically according to name of prisoner, and where several are found referring to the same person, all are thrown out but one; then the number of cards retained equals the actual number of distinct convicted prisoners received in the various gaols during the year. In 1900 this number (excluding Maoris) was 2,116, a decrease of 9 on the number in 1899. These figures do not include children committed to the industrial schools simply on the ground that they are neglected or destitute.

The following table shows the number of distinct persons (exclusive of Maoris) received into gaol after conviction during 1900, classified according to nature of offence, religion, birthplace, and age:—

Distinct convicted Prisoners received into Gaol, 1900.

[Note.—In this table a prisoner convicted of more than one offence during the year is reckoned once only, under the heading of the principal offence—*e.g.*, a prisoner convicted three times of drunkenness, twice of vagrancy, and once of theft, is counted only once, under the heading "Theft." Debtors and lunatics received into gaol, and children committed to the industrial schools not convicted of any crime, are omitted.]

—	Offences against the Person.				Offences against Property.				Miscellaneous.						Totals.	
	Convicted on Indictment.		Summarily convicted.		Theft and Deceit.		Mischief.		Vagrancy.		Drunkenness.		Other Offences.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Religions—																
Church of England	22	2	47	...	270	11	16	3	80	37	201	41	160	7	796	101
Roman Catholic	17	1	55	1	107	10	15	2	54	34	209	54	139	7	596	109
Presbyterian	10	2	21	...	72	4	7	...	35	11	92	22	56	3	293	42
Wesleyan	1	...	...	...	24	1	1	...	9	2	18	2	20	...	73	5
Others	2	...	3	...	22	...	2	...	12	3	32	3	23	...	96	5
Totals	52	5	126	1	495	26	41	5	190	86	552	122	398	17	1,854	262
Birthplaces—																
England and Wales	14	1	30	...	124	5	11	2	57	18	168	25	116	5	520	56
Scotland	2	...	9	...	36	1	5	...	23	4	73	13	43	1	191	19
Ireland	9	1	23	...	48	7	10	1	40	23	136	43	55	5	322	80
New Zealand	20	2	46	...	269	9	7	1	43	30	81	34	112	3	518	79
Australian Colonies	3	1	3	1	35	3	2	...	8	5	28	4	22	...	101	14
Other British possessions ..	...	...	2	...	7	...	1	...	1	2	12	2	10	2	33	6
China	1	...	1	...	3	...	...	...	2	...	...	...	3	...	10	...
Other countries	3	...	12	...	33	1	5	1	16	4	54	1	36	1	159	8
Totals	52	5	126	1	495	26	41	5	190	86	552	122	398	17	1,854	262
Ages—																
Under 10 years	...	...	...	...	...	...	...	...	....	...	...	...	...	...	...	...
10 and under 12 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 and under 15 years	1	...	...	...	6	...	...	...	...	...	...	...	...	...	7	...
15 and under 20 years	2	1	2	...	64	1	1	...	4	3	7	4	23	1	103	10
20 and under 25 years	13	1	31	...	97	5	10	1	14	11	33	3	76	...	274	21
25 and under 30 years	6	...	22	1	79	3	...	...	20	7	56	9	73	1	256	21
30 and under 40 years	11	1	34	...	125	6	10	...	46	18	137	38	100	5	463	68
40 and under 50 years	9	1	23	...	69	5	10	2	52	34	152	42	62	6	377	90
50 and under 60 years	7	...	10	...	42	3	5	2	26	9	103	20	39	2	252	36
60 years and over	3	1	4	...	13	3	5	...	28	4	64	6	25	2	142	16
Totals	52	5	126	1	495	26	41	5	190	86	552	122	398	17	1,854	262
Totals, 1899	64	6	140	8	531	24	39	2	172	101	491	119	421	7	1,858	267

The number of distinct persons (exclusive of Maoris) imprisoned after conviction, in the past eleven years, counting one offence only when the same person was imprisoned more than once, with the proportion per 10,000 persons living, is added:—

Distinct Persons imprisoned after Conviction.

Year.	Prisoners.	Proportion per 10,000 of Population.	Year.	Prisoners.	Proportion per 10,000 of Population.
1890	2,397	38·61	1896	1,936	27·11
1891	2,113	33·55	1897	1,884	25·84
1892	2,164	33·69	1898	1,982	26·92
1893	2,111	31·92	1899	2,125	28·33
1894	1,955	28·78	1900	2,116	27·71
1895	1,930	27·87			

There has been since 1890 a decrease of 11·72 per cent. in the number of distinct convicted prisoners, and a reduction of 10·90 per 10,000 in the proportion to population. In New South Wales the proportion for 1898 was 66 per 10,000 persons.

It must be understood that the actual number of imprisonments was much in excess of the figures given, as many persons were several times imprisoned, either for offences differing in kind or for repetitions of the same offence. Thus, persons returned as imprisoned for larceny underwent other imprisonments for drunkenness, &c. Some returned as convicted of drunkenness were several times in gaol during the year for the same offence, or for another, such as assault, riotous or indecent conduct, &c. Often there were several charges preferred against the same person at the one time, of which the most serious followed by conviction has been selected.

The proportions in every 100 distinct convicted prisoners belonging to each of the four principal religious denominations, with proportions of prisoners at each age-period, and particulars as to birthplaces and ages, will be found in the Statistical Volume for 1900, on pages 447 and 449.

Cost of Prisoners.

The prisoners in gaols during the year 1900 were maintained at a net cost to the State of £29 4s. 6d. per head, against £30 15s. 4d. in 1899.

Crime amongst the New-Zealand-born.

While the New-Zealand-born formed at the last census 67 per cent. of the whole population of the colony, they contributed in 1900 only 28 per cent. of the prisoners received in gaol. Of the New-Zealand-born population, however, a large number are under 15 years of age, a period of life at which there are very few prisoners; and, therefore, another comparison is necessary. It is found that the New-Zealand-born over 15 years formed 52 per cent. of the total population above that age; but, as before stated, New-Zealanders constituted only 28 per cent. of the total number received in gaols.

The total number of New-Zealand-born distinct prisoners (excluding Maoris) received for the year 1900—597 persons—is found to be 34 in excess of the number for 1899. Of those received in 1900, 94 were under twenty years of age. As before stated, the plan adopted in preparing the foregoing tables is to count each prisoner only once, and to exclude all who are not convicted prisoners, besides dealing only with the number received during the year, instead of with the full number in gaol, which would, of course, include those brought forward from the previous year. The comparative results for a series of years given by this method are held to be more valuable than those brought out by one which includes prisoners merely awaiting trial, and continual repetitions of the same individuals.

Remarks by the Inspector of Prisons.

In his report for the year 1901, the Inspector of Prisons thus comments on the work of the tree-planting prison at Waiotapu, the establishment of which was mentioned in the last Year-book:—

A new departure has this year been made by the establishment of a tree-planting prison at Waiotapu, twenty-three miles from Rotorua on the Galatea and Taupo Roads. The prisoners selected for this work are all serving their first sentences, and none have been convicted of immoral or indecent offences. Of course, the experiment has not yet been sufficiently long established to say how it will work out, but so far the conduct of the prisoners has been exemplary, and the Forest Department, for whom the men are working, report that the prisoners are working quite as well as free men. They are accommodated in huts similar to those used by the railway gangers—four in a hut. There are a total of twenty-five prisoners and four officers. The cost of maintenance will, of course, be considerably higher than in the towns, but if the desired effect of keeping these better class of prisoners away from the habitual criminals, and thereby endeavouring to give them a chance of reforming, is taken advantage of by them, the extra cost will be money well expended.

First Offenders' Probation Act.

One hundred and twelve persons were placed on probation in the year 1900, as against 117 in 1899. Of these, 32 were discharged after satisfactorily carrying out the conditions of their licenses, 3 were rearrested, and 77 remained under the supervision of Probation Officers.

Of the 1,232 persons placed on probation since the introduction of the Act in October, 1886, no less than 1,021 had, by the end of the year 1900, been discharged after satisfactorily carrying out the conditions of their licenses, 73 have been rearrested and sentenced to various terms of imprisonment, 1 committed suicide, 2 died, 29 absconded, 1 was sent to a lunatic asylum, and 105 remained fulfilling the conditions of their terms of probation. The Inspector of Prisons, in his report for the year 1900, made the following remarks, which will well bear repeating:—

From the foregoing it will be seen that a percentage of 83 have done well, while only a percentage of 2·41 have eluded the vigilance of the Probation Officers and absconded. These statistics speak for themselves, and show that

the Probation Officers, who do the work gratuitously, have carefully inquired into and made judicious recommendations in the majority of cases, and are deserving of commendation.

The above-quoted results prove beyond doubt that the First Offenders' Probation Act, which was placed on the statute-book of the colony to put first offenders under a term of surveillance that is calculated to give them an extra incentive to good behaviour, and to check predilections that might end in a career of crime, is satisfactorily attaining that end. A probationer has ever before his mind the inevitable consequence which will ensue should he deviate from strictest rectitude of conduct during his probation, while he is not in a position to be contaminated by the evil associations which are almost inseparable from a prison life. The State is relieved of the expense of his support, and there is much more inducement to return to the paths of honesty and industry than there would be were he under bars and bolts inside the walls of a felon's cell; and, lastly, he is not branded as a "gaol-bird."

The amount of costs which the various Courts directed to be paid during the year 1900 was £515 9s. 1d., of which £242 3s. 10d. has been actually paid. The approximate cost of keeping these first offenders had they been sent to prison would have amounted to £5,029, which sum, added to the amount of costs, &c., actually paid, gives a saving of £5,271 3s. 10d.

Inquests.

The number of bodies on which inquests were held in 1900 was 967, including 32 Maoris. In 735 cases the bodies were of males, and in 232 of females.

The inquests on suicidal deaths in 1900 show a decrease on the number for the previous year. The figures for each of the last five years were:—

Year.	Inquests on Suicides.			Year.	Inquests on Suicides.		
	Males.	Females.	Total.		Males.	Females.	Total.
1896 ..	58	12	70	1899 ..	61	13	74
1897 ..	42	11	53	1900 ..	52	11	63
1898 ..	69	8	77				

The verdicts given at the inquests held in 1900 may be classified as under:—

Nature of Verdict.	Inquests on Persons.		
	Males.	Females.	Total.
Accident	334	69	403
Disease and natural causes ..	327	146	473
Intemperance	3	2	5
Homicide	8	4	12
Suicide	52	11	63
Not classed	11	..	11
	735	232	967

Of the accidental deaths, drowning is the most fatal form. The verdicts show that 130 bodies were found drowned, giving a percentage of 32·26 on the accidental deaths from all causes.

Fire Inquests.

The inquests on fires held during 1900 numbered 39. In seven cases the verdict was incendiarism; in four, accident; and in twenty-eight no evidence was forthcoming.

SECTION XIV.—LOCAL GOVERNING BODIES.

Counties, Boroughs, etc.

For purposes of local government New Zealand is divided into counties and boroughs. Although the boroughs, of which there were 101 in March, 1901, lie geographically within the counties, yet by the law they are not considered as part of them. On the 31st March, 1901, the counties numbered 86. The number is increased from time to time as need is found for further division. In the year 1878 there were only 63 counties. Interior to the counties are the road and town districts, but much of the country is outlying, many road districts having been merged, especially on goldfields territory.

There were, however, 227 road districts (three without Boards) in existence in March, 1901, and 35 town districts. One of these latter is the special Town District of Rotorua, constituted under "The Thermal-Springs Districts Act, 1881." Besides the above there were 29 river protective districts (excluding Inch Clutha, in Bruce County, which is also a road district), 1 drainage district (Christchurch), 2 water-supply districts, and 17 land drainage districts under the Land Drainage Act of 1893 (two without Boards). The Harbour Boards numbered 26.

These bodies levied rates in the financial year 1900–1901 to the amount of £734,023, of which £490,789 consisted of general rates, and £243,234 special and separate rates. The sum of £81,561 was raised by licenses, and £17,553 by other taxes, making £833,138 altogether, which sum is equivalent to £1 1s. 9d. per head of the mean European population. In the year 1899–1900 the local taxation was £1 1s. 7d. per head, or 2d. less than in 1900–1901.

It will be seen from the table on the next page that since 1881 revenue derived from rates has nearly trebled itself, having increased from £249,087 in 1880–81 to £734,023 in 1900–1901. Revenue from Government and other sources has, on the other hand, decreased in the same period, twenty-one years, from £352,540 to less than one-half, viz., £168,785. Receipts which cannot be classed as "revenue" were £889,705 in 1880–81, against £825,039 in 1900–1901; but these figures vary from year to year according to circumstances, such as large operations by way of construction of works, for which money has to be specially raised.

The receipts (distinguishing revenue from other sources of income) and expenditure of the various local bodies, with the amount of rates collected, and the amount of indebtedness on account of loans for each of the past twenty-one years, are shown in the following table:—

LOCAL GOVERNING BODIES.—RATES, RECEIPTS, EXPENDITURE, AND LOANS, 1881 TO 1901.*

Year ended 31st March.	Receipts of Local Bodies.						Expenditure of Local Bodies.†	Outstanding Loans of Local Bodies (excluding Government Loans, for which see the following Columns).	Government Loans to Local Bodies.	
	Revenue from.				Receipts not Revenue.	Total Receipts.			Outstanding Debentures under "The Roads and Bridges Construction Act, 1882."	Net Indebtedness in February of each Year under "The Government Loans to Local Bodies Act, 1886" (including Debentures under the Roads and Bridges Construction Act, converted).
	Rates.	Licenses, Tolls, Rents, and other Sources.	Government.	Total Revenue.						
	£	£	£	£	£	£	£	£	£	£
1881 ..	249,087	461,602	352,540	1,063,229	889,705	1,952,934	1,871,752	3,039,807	..	..
1882 ..	297,328	476,473	218,179	991,980	419,608	1,411,588	1,637,337	3,277,584	..	..
1883 ..	327,129	466,885	133,565	927,579	311,466	1,239,045	1,397,863	3,540,046	..	..
1884 ..	398,659	502,969	241,558	1,143,186	331,994	1,475,180	1,499,117	3,962,330	77,439	..
1885 ..	401,393	477,813	364,082	1,243,288	430,561	1,673,849	1,653,706	4,313,223	123,086‡	..
1886 ..	410,639	504,807	377,811	1,293,257	514,728	1,807,985	1,644,706	4,943,270	134,534	..
1887 ..	434,237	447,631	342,432	1,224,300	992,633	2,216,933	1,885,001	5,620,747	113,072	..
1888 ..	433,832	460,210	334,857	1,228,899	511,594	1,740,493	1,819,787	5,812,803	18,635	191,687
1889 ..	445,929	535,140	141,288	1,122,357	316,139	1,438,496	1,560,605	5,892,050	10,495	273,289
1890 ..	460,303	568,405	139,320	1,168,028	206,688	1,374,716	1,476,540	5,978,059	9,676	319,603
1891 ..	463,581	518,757	144,008	1,126,346	236,902	1,363,248	1,381,320	6,042,693	4,317	367,715
1892 ..	488,824	584,274	109,022	1,182,120	214,124	1,396,244	1,400,467	6,081,934	4,245	449,532
1893 ..	508,157	573,161	136,515	1,217,833	340,538	1,558,371	1,482,548	6,203,869	3,465	525,173
1894 ..	551,412	547,560	134,271	1,233,243	623,038	1,856,281	1,589,124	6,614,824	2,685	547,679
1895 ..	581,868	545,629	138,228	1,265,725	328,798	1,594,523	1,584,518	6,685,510	2,015	621,903
1896 ..	592,903	581,966	156,180	1,331,049	269,145	1,600,194	1,627,079	6,737,578	1,442	667,451
1897 ..	598,526	586,599	178,448	1,363,573	246,919	1,610,492	1,636,716	6,793,398	1,077	709,282
1898 ..	644,552	608,436	182,166	1,435,154	304,645	1,739,799	1,733,016	6,834,361	712	742,530
1899 ..	685,769	642,289	178,438	1,506,496	385,368	1,891,864	1,778,574	6,968,254	347	789,618
1900 ..	714,151	695,988	152,044	1,562,183	372,028	1,934,211	1,960,073	7,057,350	..	810,192
1901 ..	734,023	751,046	168,785	1,653,854	825,039	2,478,893	2,250,572	7,563,069	..	902,769

*The figures for the Christchurch Drainage Board and Harbour Boards included are for the calendar years ended three months previous to the financial years. †Not including balances, deposits, or amounts paid to sinking funds and for redemption of debentures ‡On the 30th June.

The indebtedness of local governing bodies on account of outstanding loans has increased in twenty-one years by nearly 149 per cent., from £3,039,807 to £7,563,069, exclusive of moneys borrowed from Government under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886," which represented a further indebtedness of £902,769 at the end of March, 1901.

Taxation by Local Bodies.

Table showing the Revenue of Local Governing Bodies derived from Rates, Licenses, and other Taxes during the Year 1900–1901.

Local Bodies.	Rates.		Licenses.	Other Taxes.	Total.
	General.	Special and Separate.			
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Counties * ...	180,032 18 8	40,893 16 5	23,309 2 8	9,836 11 9	254,072 9 6
Boroughs * ...	148,436 19 3	183,698 7 0	52,611 11 3	6,031 3 7	390,778 1 1
Town Boards * ...	3,282 5 1	153 1 4	3,511 5 9	173 10 5	7,120 2 7
Road Boards * ...	91,796 7 3	12,688 19 3	2,129 0 1	1,569 6 6	108,123 13 1
River Boards * ...	6,793 6 4	1,588 11 1	...	...	8,381 17 5
Land-drainage Boards * ...	2,050 19 7	1,069 10 10	...	2 15 8	3,123 6 1
Harbour Boards †	38,104 5 8	...	...	...	38,104 5 8‡
Christchurch Drainage Board †	20,291 10 10	...	...	...	20,291 10 10
Waimakariri-Ashley Water-supply Board *	...	3,142 6 10	...	...	3,142 6 10
Totals ...	490,788 12 8	243,234 12 9	81,560 19 9	17,553 7 11	833,137 13 1§

* For year ended 31st March, 1901. † For year ended 31st December, 1900.

‡ Wharfage dues, charges, fees, tolls, rents, &c., amounting to £372,381 7s. 1d., have not been classed as taxation.

§ Equal to £1 1s. 9d. per head of the mean European population of the colony for the financial year 1900–1901.

Receipts and Expenditure, 1900–1901.

A summary of all the transactions for the year 1900–1901 is given on pages 293 to 295. The total revenue of the local bodies for the financial year was £1,653,854, and they further received a sum of £825,039 which could not properly be termed "revenue," making altogether a grand total of receipts amounting to £2,478,893. The rates formed 44 per cent. of the revenue proper. Licenses, rents, and other sources yielded 46 per cent., and 10 per cent. was granted by the General Government.

While the revenue proper of the counties amounted to £380,683, of which these bodies raised £220,927 by way of rates, the Road Boards' revenue was only £158,578, out of which £104,485 represented the result of their rating. The boroughs had the far larger revenue of £604,820, including £332,135 of rates, and their receipts under the heading of licenses, rents, and other sources amounted to the considerable sum of £255,282. In the matter of receipts from Government, of which a table is printed on the next page, the counties received the bulk of the money.

The details of amounts received, representing Government support to the various bodies, are stated in the following table :—

LOCAL GOVERNING BODIES.—RECEIPTS FROM GOVERNMENT, 1900-1901.

—	Counties.	Boroughs.	Town Boards.	Road Boards.	River Boards (excluding Inch-Clutha, also Road Board).	Land Drainage Boards.	Harbour Boards.	Drainage Board.	Waimakariri Water-supply Board.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rates on Crown and Native lands...	...	70 1 4	...	104 9 11	...	...	...	...	...	174 11 3
One-third receipts from land sold on deferred payment and from perpetual lease	20,892 0 1	...	3 15 8	6,028 18 8	...	...	...	...	...	26,924 14 5
One-fourth of rents from small grazing-runs	2,786 8 0	...	...	612 11 6	...	...	...	...	...	3,398 19 6
Goldfields revenue and gold duty ...	41,907 15 11	1,265 0 4	0 16 2	57 6 0	...	...	...	...	...	43,230 18 5
Subsidies under the Local Bodies' Finance and Powers Act ...	44,019 4 11	14,175 19 6	704 3 2	19,587 0 3	16 16 10	...	...	...	...	78,503 4 8
Fees and fines under the Financial Arrangements Act	1,256 8 1	1,082 16 4	113 14 0	9 1 5	...	...	...	30 0 0	...	2,491 19 10
Other receipts	995 10 0	807 19 1	1 10 0	5,431 12 4	190 14 7	97 10 0	6,389 6 3	146 10 0	...	14,060 12 3
Total Revenue Account ...	111,857 7 0	17,401 16 7	823 19 0	31,831 0 1	207 11 5	97 10 0	6,389 6 3	176 10 0	...	168,785 0 4
Loans under Government Loans to Local Bodies Act	43,793 10 0	26,880 7 10	...	13,858 2 0	...	2,200 0 0	...	...	1,000 0 0	87,731 19 10
Grants for special works, &c. ...	75,791 14 4	4,048 17 8	...	199 2 6	...	...	...	...	...	80,039 14 6
Total receipts from Government	231,442 11 4	48,331 2 1	823 19 0	45,888 4 7	207 11 5	2,297 10 0	6,389 6 3	176 10 0	1,000 0 0	336,556 14 8

Local Governing Bodies.—Receipts, Expenditure, and Loans, 1900-1901.

Financial Year ended 31st March, 1901.

—	Counties.	Boroughs.	Town Boards.	Road Boards.	River Boards (excluding Inch-Clutha, also Road Board).	Land Drainage Boards.	Waimakariri Water-supply Board.	Totals.
Receipts:—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Revenue from—								
Rates	220,926 15 1	332,135 6 3	3,435 6 5	104,485 6 6	8,381 17 5	3,120 10 5	3,142 6 10	675,627 8 11
Licenses, rents, and other sources	47,898 8 6	255,282 7 10	7,037 11 8	13,892 3 3	4,001 4 9	52 13 2	4 18 3	328,169 7 5
Government*	111,857 7 9	17,401 16 7	823 19 0	31,831 0 1	207 11 5	97 10 0	...	162,219 4 1
County	...	...	158 1 2	8,369 15 9	...	...	...	8,527 16 11
Total revenue	380,682 10 7	604,819 10 8	11,454 18 3	158,578 5 7	12,590 13 7	3,270 13 7	3,147 5 1	1,174,543 17 4
Receipts not revenue ...	*149,630 10 5*	395,581 4 0	1,212 19 8	19,095 7 3	13,819 12 11	2,209 0 0	1,015 13 3	582,564 7 6
Total receipts	530,313 1 0	1,000,400 14 8	12,667 17 11	177,673 12 10	26,410 6 6	5,479 13 7	4,162 18 4	1,757,108 4 10
Expenditure:—								
Public works	387,209 8 4	461,163 3 3	7,743 18 2	125,349 6 11	7,461 19 10	3,803 0 3	1,423 11 10	994,154 8 7
Charitable aid and hospitals	38,252 14 3	27,372 8 10	192 14 6	8,058 19 0	...	...	...	71,876 16 7
Management	48,970 18 10	55,783 17 5	1,983 15 3	15,795 9 8	1,343 0 8	275 15 10	557 18 11	124,710 16 7
Other expenditure	67,133 6 2	354,969 14 0	2,295 17 0	30,547 18 9	8,986 3 6	1,257 6 9	1,134 0 10	466,324 7 0
Total expenditure ...	539,572 7 7	899,289 3 6	12,216 4 11	179,751 14 4	17,791 4 0	5,336 2 10	3,115 11 7	1,657,072 8 9
Liabilities (including loans) ...	845,404 2 10	3,572,787 6 6	5,227 16 6	329,865 1 10	80,255 13 6	28,956 13 7	22,470 0 0	4,884,966 14 9
Loans †	6,714 0 0	3,251,817 0 0	600 0 0	3,728 0 0	43,670 0 0	...	21,200 0 0	3,327,738 0 0‡

* For amounts under various heads see preceding table; also for specification of loans under Government Loans to Local Bodies Act, and special grants, which are here included with "Receipts not revenue." † Excluding loans under Roads and Bridges Construction Act and Government Loans to Local Bodies Act. For rates of interest see page 297. ‡ Not including loans, amounting to £902,769, repayable by instalments under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886."

Note.—The return of receipts and expenditure in this summary represents the *net* receipts and expenditure of the year, exclusive of credit and debit balances, bank overdrafts, deposits, amounts paid to sinking funds, and for redemption of debentures

LOCAL GOVERNING BODIES.—RECEIPTS, EXPENDITURE, AND LOANS—*continued.*

—	Financial Year ended 31st December, 1900.		Totals—all Local Bodies.
	Harbour Boards.	Drainage Board.	
Receipts:—			
Revenue from—	£ s. d.	£ s. d.	£ s. d.
Rates	38,104 5 8	20,291 10 10	734,023 5 5
Licenses, rents, and other sources ...	414,111 8 11	237 14 9	742,518 11 1
Government*	6,389 6 3	176 10 0	168,7[illegible] 0 4
County	...	...	8,527 16 11
Total revenue	458,605 0 10	20,705 15 7	1,653,854 13 9
Receipts not revenue	241,352 5 4	1,122 2 9	825,038 15 7
Total receipts	699,957 6 2	21,827 18 4	2,478,893 9 4
Expenditure:—			
Public works	265,562 12 9	4,865 0 4	1,204,582 1 8
Charitable aid and hospitals... ...	...	...	71,876 16 7
Management	13,771 4 3	833 7 4	139,321 8 2
Other expenditure	292,443 3 4	16,024 1 11	774,791 12 3
Total expenditure	571,777 0 4	21,722 9 7	2,250,571 18 8
Liabilities (including loans)	4,186,056 7 11	203,583 11 11	9,274,806 14 7
Loans†	4,035,331 0 0	200,000 0 0	7,563,069 0 0

* † See notes to table on previous page.

The expenditure of the local bodies amounted to £2,250,572. In the counties the cost of management, including salaries, travelling-expenses, rent, printing and advertising, collection of rates or tolls, legal expenses, and sundries, was £48,977. The Borough Councils expended in the same way £55,784, and the Road Boards £15,795.

The percentages borne by the cost of management to the total receipts and total expenditure were:—

Cost of Management per Cent. of	Total Receipts	Total Expenditure.
Counties	9·2	9·1
Boroughs	5·6	6·2
Road Boards	8·9	8·8

LOANS OF LOCAL BODIES.

The outstanding loans of local governing bodies form the subject-matter dealt with in the two next tables. From them it will be seen that the total amount owing was, on the 31st March, 1901, £7,563,069. But against this accrued sinking funds to the value of £786,818 were held, leaving a net debt of £6,776,251, exclusive of moneys borrowed from the General Government and repaid by annual instalments.

The total annual charge (excluding exchange and commission) stood at £422,578, of which £385,959 was for interest, and the remainder, £36,619, contributions to sinking fund accounts.

Of the total net indebtedness in 1900–1901 the debt of the Harbour Boards, £3,664,380, formed the largest item, while the Borough Councils owed £2,881,653.

In the succeeding table (page 297) will be found a summary of the amounts raised by loan, classified according to the rates of interest paid, distinguishing loans raised in the colony from those raised abroad. It will be noticed that the amount raised abroad (£5,510,800) is nearly three times as great as that raised in New Zealand (£2,052,269). The lowest rate of interest paid was 3 per cent., but the large sum of £2,789,699 was raised at 5 per cent., and £2,402,845 at 6 per cent., while £142,000 bore interest as high as 7 per cent. and 7½ per cent.

LOANS OF LOCAL BODIES, MARCH, 1901.—NET INDEBTEDNESS AND ANNUAL CHARGE.

	Amount of Debentures and Stock in Circulation.	Amount of Accrued Sinking Fund.	Net Indebtedness.	Annual Charge (excluding Exchange and Commission).		
				Interest.	Sinking Fund.	Total.
	£	£	£	£	£	£
Counties	6,714	770	5,944	336	108	444
Boroughs	3,251,817	370,164	2,881,653	170,036	13,018	183,054
Town Boards	609	87	522	34	15	49
Road Boards	3,728	..	3,728	176	..	176
River Boards	43,670	9,871	33,799	2,255	564	2,819
Water-supply Board	21,200	791	20,409	1,015	200	1,215
Harbour Boards	4,035,331	370,951	3,664,380	200,107	20,364	220,471
Drainage Board	200,000	34,184	165,816	12,000	2,350	14,350
Totals	7,563,069	786,818	6,776,251	385,959	36,619	422,578
Inscribed debt of local bodies under "The Government Loans to Local Bodies Act, 1886" (including inscribed stock exchanged for debentures under "The Roads and Bridges Construction Act, 1882")	902,769	..	902,769*	..	..	51,585
Totals	8,465,838	786,818	7,679,020	..	..	474,163

* Repayable by annual instalments of £51,585, representing 4½ per cent. per annum on £874,442, 4 per cent. per annum on £12,634, and 3½ per cent. per annum on £335,157, the amount inscribed to 1st February, 1901. Payments for 23 years on the amount inscribed (£1,222,234, including £89,878 debentures under "The Roads and Bridges Construction Act, 1882," exchanged) would be £1,520,220. The actual repayments to date are £415,309, leaving £1,104,912 to be paid by way of interest and sinking fund on a present indebtedness of £902,769.

Loans of Local Bodies, raised within and without the Colony.

Table showing the Amount of Indebtedness of Counties, Boroughs, Town, Road, River, and Water-supply Boards, as on the 31st March, 1901, and of Harbour and Drainage Boards as on the 31st December, 1900, classified according to the Rates of Interest paid, distinguishing Loans raised in the Colony from those raised elsewhere. (See note ||)

Loans raised in the Colony.

Local Bodies.	No Interest.	3 %	3½ %	4 %	4½ %	4¾ %	5 %	5½ %	5¾ %	6 %	6½ %	7 %	Total.
	£	£	£	£	£	£	£	£	£	£	£	£	£
Counties	..	..	..	..	..	..	6,714	..	..	..	..	..	6,714
Boroughs	25,450	..	..	410,682	34,800	124,325*	153,535	18,000	65,900†	170,725	2,600	80,500‡	1,086,517
Town Boards ..	..	..	109	..	..	..	..	..	..	500	..	..	609
Road Boards ..	..	..	..	..	1,956	..	..	..	1,752	20	..	..	3,728
River Boards ..	..	..	..	3,200	..	5,000	..	..	3,320	6,150	..	..	17,670
Water-supply Board ..	..	..	..	..	..	9,000	12,200	..	..	..	..	..	21,200
Harbour Boards ..	..	14,031	60,000	690,700	..	20,000	98,650	..	32,000	450	..	..	915,831
Total raised in colony	25,450	14,031	60,109§	1,104,582	36,756	158,325*	271,099	18,000	102,972†	177,845	2,600	80,500‡	2,052,269

Loans raised outside the Colony.

Boroughs	..	..	..	33,000	..	254,700	785,500	..	..	1,030,600	..	61,500	2,165,300
River Boards ..	..	..	..	..	..	..	21,000	..	..	5,000	..	..	26,000
Harbour Boards ..	..	..	..	318,000	..	100,000	1,712,100	..	..	989,400	..	..	3,119,500
Drainage Board ..	...	..	..	..	..	..	..	..	..	200,000	..	..	200,000
Total raised out of colony	..	..	..	351,000	..	354,700	2,518,600	..	..	2,225,000	..	61,500	5,510,800

Total Loans raised.

Counties	..	..	..	..	..	..	6,714	..	..	..	..	..	6,714
Boroughs	25,450	..	..	443,682	34,800	379,025	939,035	18,000	65,900†	1,201,325	2,600	142,000‡	3,251,817
Town Boards ..	..	..	109	..	..	..	..	..	..	500	..	..	609
Road Boards ..	..	..	..	..	1,956	..	..	..	1,752	20	..	..	3,728
River Boards ..	..	..	..	3,200	..	5,000	21,000	..	3,320	11,150	..	..	43,670
Water-supply Board ..	..	..	..	..	..	9,000	12,200	..	..	..	..	..	21,200
Harbour Boards ..	..	14,031	60,000	1,008,700	..	120,000	1,810,750	..	32,000	989,850	..	..	4,035,331
Drainage Board ..	..	..	..	..	..	..	..	..	..	200,000	..	..	200,000
Total loans raised ..	25,450	14,031	60,109§	1,455,582	36,756	513,025*	2,789,699	18,000	102,972†	2,402,845	2,600	142,000‡	7,563,069

* Including £500 at 4¾ per cent. and £2,500 at 4¾ per cent. † Including £2,000 at 5·7 per cent. and £3,000 at 5¾ per cent. ‡ Including £6,000 at 7½ per cent. § Including £109 at 3½ per cent. || Not including loans, amounting to £902,769, repayable by annual instalments under "The Roads and Bridges Construction Act, 1882," and "The Government Loans to Local Bodies Act, 1886."

On referring to the comparative table on page 291, a great advance in the outstanding loans of local governing bodies will be noticed. Between 1891 and 1901 the gross indebtedness increased from £6,042,693 to £7,563,069, an addition of £1,520,376 or 25 per cent. during the ten years. During the same period the population advanced at the rate of 22 per cent., and the value of land and improvements from £122,000,000 to £147,000,000, or at the rate of 20 per cent.

The aggregate interest-charge for the year under review was £385,959, and £293,736 of this was payable on loans raised outside the colony. The average rate of interest payable to bondholders was rather more than £5 2s. 5d. per cent., as shown hereunder:—

Loans raised by Local Bodies.	Debentures and Stock in Circulation.	Interest-charge.	Average Rate of Interest.
	£	£	%
In the colony	25,450	Nil.	..
	2,026,819	92,223	4·5501
Outside the colony ..	5,510,800	293,736	5·3120
Total (excluding loans from Government) ..	7,563,069*	385,959	5·1204*

While the average rate of interest on the above-mentioned debt is found to be more than 5·12 per cent., over two millions and three-quarters were raised at 5 per cent., and upwards of two and a half millions at 6 per cent. or over.

"The Local Bodies' Loans Act, 1901."

The above Act consolidates certain measures dealing with loans to local bodies. As to Government loans, it contains the same provision as the Amendment Act of 1899 in respect of the debentures of any future loan, and offers, instead of interest payable at 5 per cent. for a term of twenty-six years, one or other of the following alternatives:—

Four and a half per cent. per annum for a term of twenty-six years;
Four per cent. per annum for thirty-two years; or
Three and a half per cent. per annum for forty-one years.

"The Municipal Franchise Reform Act, 1898."

This is a law extending and amending the franchise in the case of boroughs, and provides that, in addition to the persons who are already entitled to be enrolled, every person shall be so entitled who possesses the freehold or residential qualifications stated in the Act.

The possession of the freehold qualification is defined as being the beneficial owner of a freehold estate in land of the capital value of not less than £25, situated in the borough, notwithstanding that the person may be already enrolled, or entitled so to be, as a ratepayer of the borough.

*The £25,450 on which no interest is paid has not been taken into account in computing the average rate of interest.

Every person is deemed to possess a residential qualification within a borough if he is, and for at least three months last past has been, a residential occupant within such borough.

No person may be entered in the burgess lists in respect of more qualifications than one; but (except in the case of a ratepayer) any person who has more than one qualification may select the one in respect of which he wishes to be entered.

In the case of husband and wife, any qualification possessed by one of them is deemed to be possessed by each.

No person enrolled on a burgess roll has more than one vote, and no person enrolled by virtue of the residential qualification can vote on any proposal relating to loans or rates; and persons failing to record their votes at any poll taken in the borough are liable to have their names removed from the roll of burgesses.

Rating on Unimproved Value.

"The Rating on Unimproved Value Act, 1896," gives power to local governing bodies to levy rates upon the unimproved instead of upon the capital (or annual) value of real property; and "The Local Government Voting Reform Act, 1899" (section 2) provides that if any proposal is submitted to the votes of the ratepayers or burgesses of the district or of any subdivision of the district of a local authority, such proposal shall be deemed to be carried if at the poll taken on such proposal the number of valid votes recorded in favour of it exceeds the number recorded against it, each ratepayer having one vote and no more. And it is further provided by "The Rating on Unimproved Value Act Amendment Act, 1900," that in the localities where a poll had been previously taken and the proposal affirmed by a majority, but rejected because the majority was less than two-thirds, as was required by "The Rating on Unimproved Value Act, 1896," the proposal may again be submitted to the ratepayers.

Rates made and levied under this Act must be so adjusted as to equal as nearly as may be, but not exceed, in their producing capacity, rates made and levied on the capital (or annual) value under "The Rating Act, 1894," see special article in Part III.

Up to the end of March, 1902, forty-three local governing bodies (twenty-four boroughs, eleven counties, one town district, and seven road districts) had notified in the *New Zealand Gazette* that the proposal to levy rates on the unimproved value of land had been carried, while in seven cases (six boroughs and one county) the proposal had been rejected.

The amount of rates levied by the various Borough Councils, County Councils, Town Boards, and Road Boards, with other particulars, as returned by these bodies for the 31st March, 1901, will be found on the following pages:—

Boroughs, 1900–1901

Name of Borough.	Estimated Area (including Town Belt) in Acres.	Population.	Number of			Amount of Rate levied in the Pound.					Estimated Annual (or renting) Value of Rateable Property in March, 1901.	Capital Value of Rateable Property, March, 1901.	Unimproved Value of Rateable Property, March, 1901.
			Dwellings.	Ratepayers.	Rateable Properties.	General.	Separate.	Special.	Water.	Library.			
						s. d.	s. d.	s. d.	s. d.	s. d.	£	£	£
Whangarei ..	2,038	1,429	317	335	427	0 1½	0 0¾	..	..	..	..	131,493	..
Birkenhead ..	2,700	1,057	218	252	278	1 3	0 2¼	0 3	..	..	7,312	..	..
Devonport ..	640	3,828	783	633	1,110	1 0	..	9d. & 6d.	6d., or 2½ per cent.	..	25,777	..	..
Auckland ..	1,762	34,213	6,857	4,589	6,300	0 9	0 3	1 3	(1)2½ per cent.	0 0½	335,537	..	..
Grey Lynn ..	900	4,110	832	670	884	1 0	0 3	0 4	4 to 6 per cent.	..	25,886	..	..
Newmarket ..	150	2,060	429	311	390	1 3	..	0 7	4 to 6 per cent.	..	13,268	..	..
Parnell ..	480	4,566	950	590	863	1 3	..	1 0	4 per cent.	..	30,131	..	..
Onehunga ..	1,200	3,015	689	616	1,000	1 0	..	..	4 per cent.	..	..	16,512	..
Thames ..	2,560	4,009	920	..	..	..	..	..	..	..	..	..	..
Te Aroha ..	200	888	196	208	318	1 0	..	..	0 7	..	5,900	..	..
Hamilton ..	1,600	1,253	248	400	672	1 3	0 2	..	..	0 1	8,004	..	..
Cambridge ..	1,083	989	205	198	688	1 0	..	..	..	..	5,352	..	..
Tauranga ..	1,000	945	264	412	591	1 3	..	1 0	..	..	4,717	..	..
Gisborne ..	1,260	2,737	520	460	820	1 3	..	0 6	..	..	33,150	..	..
New Plymouth	850	4,405	915	921	1,206	1 3	..	0 10	(2)	..	38,000	..	..
Stratford ..	1,920	2,027	430	488	701	0 0$^{16}/_{16}$	..	0 0$^{7}/_{32}$	..	..	..	142,835	..
Hawera ..	500	2,131	440	412	610	1 3	..	..	..	..	17,134	..	..
Patea ..	1,420	691	148	190	380	1 3	0 4$^{3}/_{8}$	..	0 1$^{3}/_{4}$	..	5,340	..	..
Wanganui ..	1,000	7,329	1,433	1,260	1,655	0 11	..	1 1	..	..	57,000	..	..
Marton ..	1,423	1,101	230	245	393	1 1	..	0 8	..	0 1	9,052	..	..
Feilding ..	3,500	2,298	495	460	855	1 3	..	1 0	..	0 1	19,182	..	..
Palmerston N.	4,593	6,534	1,339	1,155	2,536	0 1$^{3}/_{4}$	..	..	2 per cent. under max.	0 0$^{7}/_{16}$	..	..	331,499
Foxton ..	5,760	1,211	260	324	655	1 3	..	..	..	0 1	7,229	..	..
Hastings ..	5,740	3,650	805	838	1,362	1 3	..	0 9	..	..	41,867	..	..

Napier ..	879	8,774	1,829	948	2,580	0 9	..	5d. & 10d.	1 to 2½ per cent.(3)	..	85,331	..	..
Dannevirke ..	1,222	2,315	456	406	1,296	1 3	..	3d. & 7d.	2½ & 3¾ per cent.	..	14,433	..	..
Woodville ..	1,240	926	223	469	469	0 3⅝	..	..	..	..	..	..	40,663
Pahiatua ..	740	1,209	254	400	455	0 2	..	0 0½	..	..	..	..	61,734
Masterton ..	4,311	3,949	824	657	1,146	1 1	..	..	..	0 1	35,800	..	..
Carterton ..	1,880	1,205	273	243	306	0 0 15/16	..	..	..	..	..	108,105	..
Greytown ..	3,907	1,122	254	228	370	1 3	..	0 2¼	..	0 1	8,902	..	..
Lower Hutt ..	3,225	1,822	360	394	575	0 0 15/16	0 0⅛	..	..	..	..	344,573	..
Petone ..	952	3,780	761	575	1,461	1 0	0 8	0 4	..	..	25,850	..	..
Onslow ..	2,870	1,499	318	356	628	0 2	0 0⅛	0 0¾	..	..	..	146,598	..
Wellington ..	1,100	43,638	8,192	5,020	9,798	1 3	0 3	0 10¾	0 9⅜	0 1	458,052	..	..
Karori ..	5,127	1,212	247	268	398	0 1 4/101	(4)0 0 3/17	⅛d., 3/17d., 3/17d.	..	..	..	..	103,127
Melrose ..	3,962	2,995	640	806	1,050	0 1 61/127	(5)0 0⅛	(5)0 0⅛	..	..	..	..	215,985
Picton ..	560	875	157	267	980	0 0¾	0 0⅛	..	½d. and 1d.	..	..	68,797	..
Blenheim ..	1,571	3,222	622	580	1,450	1 1½	0 2	0 2½	..	..	24,247	..	..
Nelson ..	4,800	7,010	1,475	1,150	2,316	1 1	..	0 3⅞	2 to 3½ per cent.	..	54,461	..	..
Richmond ..	2,300	543	121	131	151	0 0⅜	..	..	4 per cent.(6)	..	..	85,062	..
Motueka ..	5,643	886	167	165	290	0 1	..	..	..	..	..	81,294	..
Westport ..	713	2,922	714	875	1,125	1 8	..	..	..	..	20,469	..	..
Greymouth ..	2,000	3,748	761	607	1,001	0 4	(7)0 0 7/16	..	..	..	..	..	79,050
Brunner ..	5,700	1,572	348	253	328	1 3	..	1 4	..	..	5,345	..	..
Kumara ..	842	1,121	290	321	427	0 0 15/16	0 1½	..	..	..	..	27,658	..
Hokitika ..	1,280	1,946	523	570	665	0 0 15/16	0 1¼	0 0⅜	..	..	..	106,057	..
Ross ..	4,196	614	178	350	414	0 0⅜	0 1¼	..	..	..	..	26,582	..
Rangiora ..	1,040	1,768	404	345	554	0 0⅜	..	..	..	..	..	173,097	..
Kaiapoi ..	1,020	1,795	409	363	619	1 3	..	..	..	..	10,241	..	..
Christchurch	1,249	17,538	3,575	3,146	4,754	1 3	1 0	1½d. and 2¼d.	..	..	236,798	..	..
Linwood ..	659	6,737	1,447	1,147	1,460	0 0 15/16	0 0⅛	(8)0 0⅛	..	..	..	476,136	..
St. Albans ..	1,500	6,607	1,419	1,360	1,708	0 0 11/16	0 0 3/32	0 0 23/64	..	..	..	710,335	..
Sydenham ..	1,190	11,404	2,385	1,965	2,376	0 0⅞	..	0 0¼	..	..	..	782,161	..
Woolston ..	1,276	2,532	509	540	667	0 0 15/16	0 0 5/32	..	..	..	..	200,919	..
Sumner ..	4,876	844	216	285	391	1 3	0 2	0 7	2½ per cent.(9)	..	7,031	..	..
New Brighton	1,500	1,008	266	560	711	1 0	0 2	0 9	..	..	6,909	..	..
Lyttelton ..	2,014	4,023	821	567	793	1 3	..	..	..	..	23,777	..	..
Akaroa ..	221	559	140	128	190	0 0 15/16	..	..	..	..	..	47,907	..

BOROUGHS, 1900-1901—*continued.*

Name of Borough.	Estimated Area (including Town Belt) in Acres.	Population.	Number of			Amount of Rate Levied in the Pound.					Estimated Annual (or renting) Value of Rateable Property in March, 1901.	Capital Value of Rateable Property, March, 1901.	Unimproved Value of Rateable Property, March, 1901.
			Dwellings.	Ratepayers.	Rateable Proportion.	General.	Separate.	Special.	Water.	Library.			
						s. d.	s. d.	s. d.	s. d.	s. d.	£	£	£
Ashburton ..	680	2,322	464	510	536	1 0	..	..	..	..	20,682	..	..
Temuka ..	794	1,465	333	386	635	0 1	(10)0 0⅝	..	..	..	..	82,930	..
Timaru ..	1,100	6,424	1,253	900	1,820	1 0	1 0	1 0	6d. and 1s.	..	49,000	..	..
Waimate ..	649	1,359	316	340	500	0 4¾	..	..	..	..	..	..	25,569
Oamaru ..	1,111	4,336	1,058	1,304	1,547	1 3	..	1 9	(11)	..	29,476	..	..
Hampden ..	640	331	92	120	130	0 0¾	..	..	..	..	..	15,663	..
Palmerston S.	800	738	184	248	360	0 0¾	..	1/13d. & 1¼d.	..	..	..	38,429	..
Hawksbury ..	2,700	690	161	240	440	0 0¾	..	..	..	..	..	44,826	..
Port Chalmers	335	2,056	467	508	576	1 0	..	0 6	(11)	..	12,163	..	..
North-East Valley	3,980	3,527	727	1,096	1,134	1 0	0 2	0 6	..	..	17,980	..	..
Maori Hill ..	3,700	1,550	315	343	382	1s. and 1s. 3d.	..	..	..	..	10,359	..	..
West Harbour	1,670	1,465	299	476	637	1 0	..	1 0	..	..	8,884	..	..
Dunedin ..	1,800	24,879	5,022	3,000	6,080	1 3	..	0 9	(12)	..	246,600	..	..
Roslyn ..	2,000	4,632	914	945	1,071	1 0	(13)0 1½	..	..	..	30,912	..	..
Mornington ..	654	4,008	808	810	1,001	1 3	0 3	0 1½	..	..	22,722	..	..
Caversham ..	1,073	5,266	1,056	846	1,074	1 3	0 3	0 3	1 0	..	31,989	..	..
St. Kilda ..	463	1,700	325	474	679	1 0	..	0 6	6 per cent.	..	10,335	..	..
South Dunedin	413	5,363	1,124	904	1,137	1 3	0 6	0 6	6 per cent.	..	23,103	..	..
Green Island	103	667	137	184	195	1 3	..	..	..	..	2,862	..	..
Mosgiel ..	967	1,463	315	324	514	1 0	..	..	..	..	8,534	..	..
Milton ..	265	1,241	290	228	315	1 3	..	..	..	..	6,962	..	..
Kaitangata ..	1,158	1,463	285	285	528	1 0	0 6	..	..	..	6,359	..	..
Balclutha ..	568	1,017	225	254	300	1 3	0 3	..	..	0 1	5,252	..	..

Lawrence ..	640	1,159	241	350	300	1	0	..	..	3d. and 6d.	..	7,894	..	..
Roxburgh ..	400	478	119	85	127	1	0	..	..	..	..	1,603	..	..
Tapanui ..	126	350	91	70	119	1	9	..	..	..	..	1,909	..	..
Naseby ..	113	505	113	145	166	0	9	..	..	(14)	..	2,358	..	..
Cromwell ..	640	642	146	135	240	1	3	..	..	..	1 2	4,972	..	..
Alexandra ..	840	818	192	157	256	2	0	(15)	..	..	..	6,060	..	..
Arrowtown ..	390	410	95	100	220	1	3	..	..	..	..	2,054	..	..
Queenstown ..	923	690	195	175	714	1	0	..	0 6	0 6	..	4,846	..	..
Gore ..	1,150	2,354	498	610	1,337	1	0	..	..	..	..	17,624	..	..
Mataura ..	1,530	867	182	210	485	1	0	..	..	..	..	4,632	..	..
Winton ..	160	474	100	120	160	1	3	..	..	..	..	3,021	..	..
Invercargill ..	1,000	6,215	1,201	1,100	1,750	1	0	0 3	1 2	(11)	..	61,644	..	..
North Invercargill	326	925	191	250	320	1	0	..	1 8	..	..	3,959	..	..
South Invercargill	4,000	1,874	402	614	907	1	3	0 3	1 3	..	..	6,222	..	..
East Invercargill	121	939	188	217	217	1	3	..	0 9	..	..	4,105	..	..
Avenal ..	80	355	76	69	105	1	0	..	..	..	..	1,912	..	..
Gladstone ..	240	329	73	132	132	1	0	..	0 6	..	..	2,750	..	..
Campbelltown	2,000	1,350	305	355	620	1	3	..	..	..	..	9,357	..	..
Riverton ..	718	815	206	230	427	1	3	..	..	..	..	4,267	..	..

(1) Consumers only.
(2) Stores and land, 6d.; dwellings, 1s.
(3) 1s. 3d. per 1,000 gallons by meter.
(4) On capital value.
(5) On capital value. £341,400.
(6) On annual value.
(7) On capital value, for charitable aid purposes.
(8) Special $\frac{1}{2}$d.; Christchurch drainage rate, $\frac{3}{4}$d.; South Waimakariri River Board rate, $\frac{2}{11}$d.
(9) $2\frac{1}{2}$ per cent. on unconnected property.
(10) Sanitation rate in West District only.
(11) Maximum under "Municipal Corporations Act, 1886."
(12) Under £12 10s., 10s.; under £300, 5 per cent.; over £300, 4 per cent.; land and building, half these rates.
(13) 9d. in portion of district.
(14) $2\frac{1}{2}$, $3\frac{1}{2}$, 6, and 7 per cent. on rateable value.
(15) 6d. for charitable aid; 6d. for sanitation,

COUNTIES, 1900–1901.

[NOTE.—For value of land and improvements see Statistical Volume, 1900, page 457 and onwards.]

Counties.	Area in Square Miles (including Boroughs).	Population.	Rates struck by County.	
			General.	Other.
Manganui (1900)	934	2,274	¾d.	
Whangaroa	160	927	1d.	
Hokianga	972	1,767	2½d.	
Bay of Islands	826	2,587	1d.	
Hobson	688	4,813	1½d.	
Whangarei	928	6,380	¾d.	¾d. separate in outlying districts.
Otamatea	364	2,721	¾d.	¾d. separate in three and ½d. in two outlying districts.
Rodney	566	3,678	¾d.	¾d. in Hoteo outlying district.
Waitemata	613	7,035	¾d.	½d. separate in three outlying districts, ¾d. in five; $\frac{5}{16}$d. special in Mairetahi Riding.
Eden	43	19,314	..	
Manukau	791	12,306	..	
Coromandel	403	4,169	1½d.	¾d. on Native lands.
Thames	494	5,043	1½d.	
Ohinemuri	478	9,978	⅝d.	¾d. special water-rate in water-rate district.
Piako	1,095	2,436	½d.	Separate, ½d.; and special, $\frac{1}{10}$d., Taotaoroa and Patetere Ridings.
Waikato	591	3,183	¼d.	
Waipa	282	3,580	½d., ¾d.	¾d. separate, Mangapiko and Hamilton Ridings.
Raglan	824	1,697	½d., ¾d.	⅛d. H. and C.A., ⅛d. Karioi loan; $\frac{3}{20}$d. Waingaro loan.
Kawhia	1,515	1,113	..	
West Taupo	1,594	287	..	
East Taupo	2,581	256	..	
Rotorua	984	1,307	..	
Tauranga	577	1,720	¾d.	¼d. special; special ⅛d. Maketu, ⅛d. Waimapu, $\frac{1}{11}$d. Katikati Ridings.
Whakatane (no return)	1,716	779		
Opotiki	1,440	1,438	½d., ¾d.	¾d. separate, Ohiwa Riding.
Waiapu	1,121	711	¾d.	¾d. special, Tokomaru-Tuakau.
Cook	1,950	6,393	¾d.	Various.

Clifton	1,518	2,535	1d.	½d. special, Junction Road loan; $\frac{6}{10}$d. special, Onaero Road loan.
Taranaki	583	11,194	⅜d.	$\frac{1}{12}$d. for Eltham Road loan (small portion of county only).
Stratford	784	5,081	¾d.	¾d. separate; special, various.
Hawera	438	8,347	¾d.	¼d. separate, Mangatoki, Okaiawa, and Eltham outlying districts.
Patea	691	3,046	¾d.	$\frac{11}{16}$d. special, Kapara loan, ¾d. Omuoa loan; ¾d. separate, Kapara Riding.
Waitotara	343	3,476	1d.	Special, for loans in special rating districts.
Wanganui	1,942	4,018	¾d.	⅛d., ⅜d. special, Long Acre; $\frac{7}{10}$d. Denlair, $\frac{1}{16}$d. Waikupu Subdivisions.
Rangitikei	852	7,570	¾d.	⅛d. separate in Otairi, Ohingaiti, and Mangahoe Ridings; $\frac{1}{16}$d. Wangaehu Riding; special, various, in special rating districts.
Kiwitea	336	2,844	¾d.	Special and separate, various.
Oroua	397	6,778	..	
Pohangina	295	1,536	¾d.	¼d., ½d. separate; special, various.
Manawatu	267	3,000	¾d.	Separate and special, various.
Horowhenua	591	4,654	½d., ⅜d., ¾d.	Special, various.
Wairoa	1,887	1,773	¾d.	Special, ½d., $\frac{5}{12}$d. $\frac{1}{64}$d. in portions of county.
Hawke's Bay	3,232	6,838	$\frac{13}{16}$d.	
Waipawa	1,154	9,495	⅛d., 1½d.	$\frac{3}{10}$d., $\frac{3}{125}$d., $\frac{7}{10}$d., 1⅜d., ½d.
Patangata	747	2,376	¼d., ⅜d.	$\frac{7}{16}$d. Harbour Board.
Pahiatua	302	3,600	$\frac{15}{16}$d.	Forty-four special, various.
Akitio	377	1,048	½d.	
Castlepoint	150	457	⅜d.	Special rates on loans.
Eketahuna	166	2,332	1½d.	½d. separate.
Mauriceville	123	1,127	⅝d.	Special rates over small rating areas.
Masterton	670	3,123	..	No return.
Wairarapa South	1,281	5,419	..	½d. hospital and charitable aid.
Hutt	590	7,171	¼d., ⅜d.	½d. separate; ½d., ½d., ⅜d., $\frac{5}{16}$d., ⅜d. special.
Sounds	573	946	..	
Marlborough	3,812	6,518	..	
Kaikoura	673	1,765	⅜d.	
Collingwood	1,029	2,490	⅜d.	
Waimea	1,662	7,833	⅜d.	⅛d. H. and C.A.; $\frac{1}{10}$d. and $\frac{3}{19}$d. special for loans.
Buller	1,818	4,868	1½d.	3½d. special, Charleston Riding; ⅜d. H. and C.A.
Inangahua	2,256	4,595	3d. 3½d.,	Two special, $\frac{5}{16}$d., ½d., Reefton Town; 2½d. Boatman's irrigation district.

COUNTIES, 1900-1901—*continued.*

Counties.	Area in Square Miles (including Boroughs).	Population.	Rates struck by County.	
			General.	Other.
Grey	1,452	4,971	1¼d.	⅝d. hospitals and charitable aid.
Westland	4,420	4,405	1½d.	
Amuri	2,362	1,142	½d.	⅝d., 7/16d., 5/16d., special, for interest on loans.
Cheviot	322	1,120	¾d., ⅝d.	Special ⅛d., Hawkswood Riding, for loan.
Ashley	1,627	11,599	..	
Selwyn	2,597	30,787	..	½d. hospitals and charitable aid.
Akaroa	353	3,669	⅝d.	¼d. special.
Ashburton	2,542	11,342	½d.	⅛d. special.
Geraldine	945	5,991	¼d.	
Levels	273	5,496	1d.	
Mackenzie	2,537	1,642	⅝d.	
Waimate	1,343	5,653	¼d.	¼d., ⅝d., ⅝d. separate.
Waitaki	2,333	9,086	½d.	Separate, ⅛d. Otepopo, ¼d. Kakanui, 5/16d. Moeraki and Waiareka Ridings.
Waihemo	336	2,014	⅝d.	
Waikouaiti	318	4,082	¾d.	
Peninsula	37	2,561	..	
Taieri	930	7,179	¾d.	¼d. hospitals and charitable aid
Bruce	503	4,762	⅝d., ¾d.*	5/16d. hospitals and charitable aid; ½d. separate (for bridge erection); special, various.
Clutha	946	6,445	¾d.	5/16d. hospitals and charitable aid; special, various.
Tuapeka	1,365	6,272	¾d.	
Maniototo	1,239	3,792	¾d.	
Vincent	2,684	4,362	1d.	1½d., 2½d., special.
Lake	3,712	2,535	1d.	
Southland	3,852	22,583	¾d.	⅛d. H. and C.A.; 1/16d. small-birds destruction; ¼d. special in special rating districts.
Wallace	3,404	7,989	¾d.	⅛d. H. and C.A.; 2d. separate, Aparima Riding; ⅝d. Orepuki and Waiau Ridings; 6d. outlying districts of Otautau Riding; 1/20d. special, in Waiau Riding.
Fiord	3,040	124	..	
Stewart Island	651	253	½d.	¼d. hospitals and charitable aid.

* Outlying, ¾d.; road districts, ⅝d.

Town Districts, 1900–1901.

Note.—For value of land and improvements see Statistical Volume for 1900, pp. 458-463.

Town Districts.	Population.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital (or Annual) Value of Property.
					s. d.
Kamo	260	60	75	94	0 0¾
Helensville	531	97	101	124	0 4
Papakura	286	68	154	202	0 0½
Te Awamutu	355	67	65	76	0 0¾
Kihikihi	222	55	97	140	0 0¾
Ngaruawahia	245	57	140	146	0 0¾
Rotorua	914	60	..	..	..
Opotiki	627	138	205	280	0 0¾
Waitara (Raleigh)	765	169	273	..	0 0¾
Opunake	466	98	163	478	0 0¾
Inglewood	719	153	196	207	0 0¾(1)
Normanby	370	86	121	121	0 5
Manaia	447	109	153	341	0 0¾(2)
Waverley	416	108	116	116	0 0¾
Lethbridge (Turakina)	230	51	43	57	0 8 *
Bull's	501	127	130	179	1 0 *
Halcombe	336	81	145	730	1 0 *
Clyde (Wairoa)	623	128	160	296	0 0¾
Taradale	763	148	138	189	0 0½
Ormondville	459	101	183	215	0 2⅝
Waipawa	669	157	135	194	0 1⅞(3) †
Kaikora North	268	72	102	135	1 0 *
Featherston	629	126	150	190	0 0¾(4)
Johnsonville	502	120	112	167	0 0½
Havelock	316	76	79	153	0 1
Amberley	417	97	86	130	0 0¾
Southbridge	396	106	250	..	0 0¾
Hampstead	1,118	234	270	320	0 0½
Tinwald	561	111	175	231	0 0⅝
Geraldine	868	181	205	315	0 0¾
Greytown (Allanton), (1900)	227	51	74	114	0 0½
Outram	420	87	66	110	0 0½
Clinton (1900)	431	102	121	132	0 6 *
Wyndham	417	111	105	354	1 0 *
Otautau	443	98	114	156	0 0¾

(1) Special rate, ⅛d. (2) County rate, ½d. (3) Special rate, ⅛d. (4) Special rate, ½d.; separate, $\frac{1}{16}$d.

* On the annual value. † On the unimproved value.

Road Districts, 1900–1901.

NOTE.—For value of land and improvements see Statistical Volume for 1900, pp. 458–463.

County and District.	Population.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
					d.
Mongonui, Whangaroa, Bay of Islands, Hokianga, Hobson (No road districts.)					
Whangarei—					
Hikurangi	495	60	120	147	
Kaurihohore	191	51	56	68	
Kensington	49	9	18	18	
Maungakaramea	288	60	131	..	
Marua	274	63	85	112	
Maunu	584	150	142	154	
Otonga	300	52	57	59	
Parua Bay	215	150	200	255	
Ruarangi	103	27	65	65	
Waikiekie	205	27	92	211	
Waipu North	224	54	79	88	
Whareora	92	63	63	80	
Otamatea—					
Mangawai	268	50	90	90	
Matakohe	423	79	..	231	
Whakapirau (no Board)	264	..	..	..	
Rodney—					
Albertland North	65	11	45	45	
Albertland South	322	76	145	190	
Ahuroa	41	13	51	71	
Komokoriki	62	14	46	45	
Mahurangi East	151	34	74	97	
Mahurangi Upper	947	195	320	431	
Mainene	74	11	27	55	
Matakana East	132	18	30	32	
Matakana West	172	61	70	150	
Omaha	357	91	141	201	
Puhoi	596	76	123	..	
Tauhoa	371	69	93	..	
Wharehine	96	20	32	35	
Waitemata—					
Kaukapakapa	543	100	..	..	
Pukeatua	560	..	218	256	
Whangaparaoa	66	23	30	49	

Road Districts, 1900–1901—*continued.*

County and District.	Population.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
Eden—					d.
Avondale	1,075	220	364	446	$\frac{3}{4}$ (1)
Arch Hill	1,671	360	286	466	1s. (2)
Eden Terrace	2,011	409	310	438	$\frac{3}{4}$ (3)
Epsom	750	135	129	146	$\frac{3}{4}$
Mount Albert	2,085	320	466	592	$\frac{3}{4}$ (4)
Mount Eden	5,129	1050	946	1,120	$\frac{3}{4}$ (5)
Mount Roskill	581	115	179	247	$\frac{3}{4}$
Mount Wellington	954	180	202	574	$\frac{3}{4}$
One-tree Hill	1,283	180	174	254	$\frac{1}{2}$
Panmure Township	259	70	72	90	$\frac{1}{2}$
Point Chevalier	684	33	34	46	$\frac{1}{2}$
Remuera	2,186	430	398	511	$\frac{3}{4}$
Tamaki West	375	100	110	145	$\frac{3}{4}$
Manukau—					
Awhitu	413	100	158	157	$\frac{3}{4}$
Drury (1900)	382	97	162	211	$\frac{3}{4}$
Howick Town	224	71	120	132	$\frac{3}{4}$
Hunua	266	54	116	222	$1\frac{17}{128}$ (6)
Karaka	188	40	147	236	$\frac{3}{4}$
Mangere	702	202	158	206	$\frac{1}{2}$
Manurewa	260	58	82	141	$\frac{1}{2}$
Maraetai	82	20	30	36	$\frac{3}{4}$
Mauku	380	118	145	..	$\frac{1}{2}$ (7)
Maungatawhiri	378	48	62	95	$\frac{1}{2}$
Mercer Township	229	32	50	75	$\frac{3}{4}$
Opaheke	369	82	116	285	$\frac{3}{4}$
Otahuhu	1,211	325	279	354	$\frac{3}{4}$
Pakuranga	271	64	70	94	$\frac{3}{4}$
Papakura	373	83	106	127	$1\frac{34}{100}$
Paparata	373	87	114	160	$\frac{3}{4}$
Paparoa	166	45	70	93	$\frac{3}{4}$
Papatoitoi	176	37	39	49	$\frac{1}{2}$
Pokeno	398	72	94	126	$\frac{3}{4}$ (8)
Pollok Settlement	88	20	25	30	$\frac{3}{4}$
Pukekohe East	942	214	254	276	$\frac{3}{4}$
Pukekohe West	1,153	220	252	631	$\frac{3}{4}$
Tamaki East	580	113	118	142	$\frac{3}{4}$
Turanga	227	44	68	75	$\frac{3}{4}$ (9)
Waipipi	905	210	250	300	$\frac{3}{4}$ (10)
Wairoa	792	207	203	304	$\frac{3}{4}$
Waiuku	492	129	210	220	$\frac{3}{4}$
Coromandel, Thames, Ohinemuri	(No road districts.)				

(1) $\frac{1}{4}$d. separate. (2) On annual value; $4\frac{1}{2}$d. special. (3) $\frac{1}{4}$d. special. (4) Hospital and charitable aid rate, $\frac{1}{8}$d. (5) $\frac{3}{8}$d. special. (6) $11\frac{3}{32}$d. special. (7) $\frac{1}{16}$d. and $\frac{1}{4}$d. special. (8) $\frac{1}{4}$d. special. (9) $\frac{1}{2}$d. special. (10) $\frac{1}{4}$d special.

Road Districts, 1900–1901—*continued.*

County and District.	Population.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
					d.
Piako—					
Matamata	262	50	38	52	½
Waitoa	1,322	240	244	351	½
Waikato—					
Cambridge	562	95	123	123	½
Kirikiriroa	964	153	251	251	½
Tamahere	248	26	52	52	½
Whangamarino	443	80	209	421	½
Huntly	966	120	196	..	½
Waipa—					
Newcastle	391	89	151	135	¾
Pukekura	810	188	386	394	½
Rangiaohia	507	85	111	120	½
Tuhikaramea	98	22	56	56	½
Raglan—					
Karamu (no Board)	78	..	..	..	..
Onewhero	197	44	59	60	..[1]
Te Akau (no Board)	32	..	..	..	..
Kawhia West Taupo East Taupo Rotorua	(No road districts.)				
Tauranga—					
Katikati	409	82	141	259	¾
Te Puke	477	130	171	171	½
Te Puna	169	35	135	140	..[1]
Whakatane Waiapu Opotiki	(No road districts.)				
Cook—					
Aroha	58	11	10	9	[1]
Kaiti	700	140	164	260	¾[2]
Ngatapa	489	116	94	101	[1]
Ormond	482	107	110	160	[1]
Patutahi	638	75	101	230	[3]
Pouawa	85	45	75	110	[4]
Poverty Bay	1,050	129	131	131	[5]

(1) No rate struck. (2) ¾d. special. (3) No general rate; ¾d. special. (4) No general rate; ¼d., ½d., 2½d., and 2¾d. special. (5) No general rate; ⅝d. separate.

ROAD DISTRICTS, 1900-1901—*continued.*

County and District.	Population.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
Cook—*continued.*					d.
Taruheru	225	45	53	53	(1)
Te Arai	294	54	57	188	(2)
Titirangi	44	10	19	30	(3)
Waikohu	328	56	78	78	(1)
Waimata	264	47	47	50	(1)
Waipaoa	80	9	9	16	(1)
Whataupoko	1,148	200	250	310	¾(4)
Clifton. (No road districts.)					
Taranaki—					
Barrett	439	77	77	125	½
Carrington	341	66	85	85	¾(5)
Egmont	635	156	157	301	¾(6)
Elliot	235	43	51	60	¾
Frankley	231	60	67	67	¾
Henui	393	80	100	133	¾
Hurford, Upper	56	17	17	17	¾
Mangorei	276	47	66	68	¾
Moa	2,836	470	550	600	¾(7)
Oakura	333	100	102	404	½(8)
Okato	345	61	80	137	¾
Omata	294	62	57	70	½
Parihaka	1,514	251	352	820	½
Tataraimaka	152	26	38	38	¼
Waitara West	814	170	170	475	½(4)
Waiwakaiho	350	75	99	183	½
Stratford—					
Manganui	1,734	350	..	680	¾(9)
Hawera—					
Waimate	2,619	475	512	700	¾(9)
Patea—					
Kohi	166	32	30	30	¾
Motoroa	60	18	20	20	¾
Okotuku	134	24	29	33	¾
Patea East	401	70	84	355	(1)
Patea West	777	180	200	630	(1)
Wairoa	105	22	30	33	¾
Waitotara-Momohaki	496	115	113	169	¾
Whenuakura-Waitotara	313	40	42	42	¾
Waitotara. (No road districts).					

(1) No rate struck. (2) No general rate; ½d. special. (3) No general rate; ½d. special. (4) ½d. special. (5) ½d. special. (6) ½d. special; ½d. ½d., and ½d separate. (7) ½d. special. (8) ½d. special over special-rating area. (9) Special, various.

Road Districts, 1900–1901—*continued.*

County and District.	Population.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the pound on the Capital Value.
					d.
Wanganui—					
Kaukatea	198	45	41	108	$\frac{3}{4}$
Kaitoke	606	120	100	150	$\frac{3}{4}$
Mangawhero	973	450	530	490	$\frac{1}{2}$
Purua	904	170	160	245	$\frac{1}{2}$
Wangaehu Upper	695	100	151	333	$\frac{3}{4}$ (1)
Rangitikei. (No road districts.)					
Oroua—					
Manawatu	2,405	450	519	731	$1\frac{1}{2}$
Manchester	3,313	760	682	2,147	$\frac{3}{8}$ (2)
Fitzherbert	724	136	278	405	$\frac{3}{8}$
Pohangina, Kiwitea, Manawatu (No road districts.)					
Horowhenua—					
Otaki	1,280	270	302	1,171	$\frac{3}{4}$ (3)
Te Horo	512	100	133	509	$\frac{3}{8}$ (3)
Wirokino	2,862	760	720	1,050	(4)
Wairoa, Hawke's Bay (No road districts.)					
Waipawa—					
Kumeroa	334	100	120	238	$\frac{1}{2}$ (5)
Maungaatua	244	..	55	188	$\frac{1}{2}$
Norsewood	1,206	200	270	290	$1\frac{1}{2}$
Ruataniwha North	651	112	82	115	$\frac{1}{2}$
Takapau	608	110	62	77	$\frac{1}{2}$ (4)
Waipawa	274	58	64	78	$\frac{3}{8}$
Waipukurau	741	178	128	183	$1\frac{1}{8}$
Woodville	817	175	240	318	1
Patangata—					
Oero	305	..	..	..	$\frac{1}{2}$
Patangata	294	46	46	99	(5)
Porangahau	433	90	78	153	$\frac{3}{4}$ (6)
Taumumu	185	20	18	18	$\frac{1}{4}$
Wallingford	192	25	22	54	$\frac{1}{2}$
Wanstead	143	16	61	77	(5)
Weber	556	84	125	158	$\frac{3}{4}$
Pahiatua. (No road districts.)					

(1) Special, various. (2) Special, $\frac{1}{16}$d.; separate, $\frac{1}{4}$d., $\frac{1}{10}$d., $\frac{3}{16}$d., and $\frac{1}{2}$d. (3) $\frac{15}{16}$d. and $\frac{3}{64}$d., special. (4) $\frac{1}{4}$d. special. (5) No rate struck. (6) $\frac{3}{64}$d. special.

ROAD DISTRICTS, 1900-1901—*continued.*

County and District.	Population.	Number of Dwellings.	Number of Ratepayers.	Number of Rateable Properties.	Amount of Rate levied in the Pound on the Capital Value.
					d.
Castlepoint	..	88	85	88	$\frac{9}{16}$ (1)
Wairarapa South—					
Featherston	2,267	450	400	600	$\frac{1}{2}$
Taratahi-Carterton	2,523	550	473	632	$1\frac{5}{16}$ (2)
Hutt—					
Makara	257	55	40	62	$\frac{1}{16}$ (3)
Plimmerton	84	25	43	50	$\frac{1}{16}$
Seatoun	432	120	138	138	$\frac{3}{4}$ (4)
Sounds. (No road districts.)					
Marlborough—					
Awatere	785	200	210	237	$\frac{3}{4}$
Omaka	1,603	326	456	456	$\frac{3}{4}$
Pelorus	1,218	230	263	429	$\frac{1}{16}$ (5)
Picton	847	185	160	253	$\frac{3}{8}$
Spring Creek	819	124	153	167	$\frac{1}{2}$
Wairau	930	180	190	212	$\frac{3}{4}$
Kaikoura. (No road districts.)					
Collingwood—					
Collingwood	1,078	334	311	541	$\frac{3}{4}$
Takaka	1,342	398	321	763	$\frac{3}{4}$
Waimea—					
Dovedale	286	48	73	73	$\frac{3}{4}$
Moutere Upper	397	100	110	110	(6)
Riwaka	687	145	..	..	(6)
Stoke	1,183	210	..	..	(6)
Suburban North	559	125	..	..	(6)
Waimea West	460	84	73	75	(6)
Buller, Inangahua, Grey, Westland, Amuri (No road districts.)					
Cheviot (no Board).					

(1) $\frac{1}{20}$d. special. (2) Special, various. (3) $\frac{1}{2}$d. special. (4) $\frac{3}{4}$d. special.
(5) $\frac{3}{8}$d. special. (6) No rate struck.

Road Districts, 1900-1901—*continued.*

County and District.	Population.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
Ashley—					d.
Ashley	726	170	220	230	1½
Cust	713	161	144	191	1½
Eyreton	1,566	334	269	269	1½
Eyreton West	401	85	77	77	1½
Kowai	1,851	540	650	753	1½
Mandeville and Rangiora	2,257	524	427	592	1½
Oxford	1,973	463	475	684	1½
Waipara	1,695	320	300	534	1½
Selwyn—					
Avon	3,889	1126	852	1,097	1s.[1]
Courtenay	2,560	423	480	754	1½
Ellesmere	3,497	..	604	909	1½
Halswell	1,278	220	200	239	1½
Heathcote	2,995	590	844	883	28/48[2]
Lake Coleridge	177	27	30	75	[3]
Lincoln	1,213	370	240	316	½[4]
Malvern	965	162	166	309	½
Malvern East	625	140	159	290	½
Malvern South	428	82	211	340	½
Rakaia	825	200	184	333	½
Riccarton	5,713	..	1,011	1,304	½
Spreydon	1,457	293	374	415	½
Springs	1,872	450	408	532	½[5]
Taitapu	324	80	67	73	¼[5]
Templeton	2,338	498	545	645	7/16[6]
Waimakariri Upper	235	21	13	41	[8]
Akaroa—					
Akaroa and Wainui	1,308	230	256	256	11/16
Le Bon's Bay	316	58	91	91	¾[7]
Little River	816	260	160	150	½
Okain's Bay	520	103	97	127	½[8]
Pigeon Bay	258	57	53	60	½[9]
Port Levy	159	26	48	56	½
Port Victoria	292	55	51	57	½
Ashburton—					
Anama	72	14	20	22	½
Ashburton Upper	2,002	380	600	680	5/8[10]
Coldstream	319	61	70	88	½
Longbeach	1,335	..	252	231	7/16
Mount Hutt	1,500	270	280	389	½

(1) On the annual value; separate, various. (2) 1/8d, H. and C.A. rate, ¾d. drainage, 2/8d. Waimakariri. (3) No rate struck. (4) ½d. separate. (5) ¼d. separate. (6) 2/16d. separate, South Waimakariri River. (7) ¾d. special. (8) ½d. separate. (9) 1/16d. special. (10) 5/8d. separate in five wards.

Road Districts, 1900–1901—*continued.*

County and District.	Population.	Number of			Amount of Rate levied in the Pound on the Capital Value.
		Dwellings.	Ratepayers.	Rateable Properties.	
					d.
Ashburton—*continued.*					
Mount Somers	928	186	228	280	¾
Rangitata	797	184	190	284	¾
South Rakaia	1,480	330	345	500	¾
Wakanui	1,230	224	280	324	¼ (1)
Geraldine—					
Geraldine	2,250	480	511	833	¾
Mount Peel	493	119	87	103	¾
Temuka	2,380	512	496	..	¾
Levels, Mackenzie, Waimate, Waitaki, Waihemo, Waikouaiti — (No road districts.)					
Peninsula—					
Otago Heads	304	62	71	96	¾ (2)
Peninsula	1,324	219	333	393	¾
Portobello	796	..	359	365	¾
Tomahawk	137	23	24	44	¾
Taieri. (No road districts.)					
Bruce—					
Balmoral	476	62	86	95	(3)
Inch-Clutha (Road and River) ..	344	60	62	72	¾
Mount Stuart	618	110	125	135	¾
Clutha, Tuapeka, Maniototo, Vincent, Lake — (No road districts.)					
Southland—					
Knapdale	1,596	293	333	396	¾
Oteramika	2,249	368	461	461	¾
Tuturau	733	113	121	156	¾
Wallace, Fiord, Stewart Island — (No road districts.)					

(1) ¼d. separate. (2) Half-rates on Native land (3) No rate struck.

SECTION XV.—LICENSES AND LICENSED HOUSES, ETC.

LICENSES AND LICENSED HOUSES.

DURING the year ended the 31st March, 1901, 2,394 licenses for the sale of intoxicating liquors were granted. Of these, 1,522 were publicans' and accommodation licenses, 6 New Zealand wine, 69 packet, 144 wholesale, and 653 conditional licenses. The fees paid amounted to £53,617, and formed part of the revenue of the local governing bodies of the districts in which the licenses were issued. Particulars are given in the following table:—

NUMBER OF LICENSES GRANTED DURING THE YEAR 1900-1901, AND THE AMOUNT OF FEES PAID TO LOCAL BODIES THEREFOR.

Licenses.	In Counties.	In Boroughs.	Total.
Publicans' licenses	612	690	1,302
Accommodation licenses	220	..	220
Total licensed houses	832	690	1,522
New Zealand wine licenses	..	6	6
Packet licenses	10	59	69
Wholesale licenses	9	135	144
Conditional licenses	511	142	653
Total licenses granted	1,362	1,032	2,394
Amount of license-fees paid to local bodies	£19,610	£34,007	£53,61

The average number of persons to each licensed house in counties and boroughs respectively, for 1900-1901, is next shown:—

	Number of Licensed Houses.*	Census Population.	Average Number of Persons to each Licensed House.
Counties	832	417,596	502
Boroughs	690	350,202	508
Totals	1,522	767,798†	504

In 1899-1900 the number of licensed houses in counties was 836, and those in boroughs 690, giving a total of 1,526 houses, or 4 more than in 1900-1901. The average number of persons to a licensed house increased from 482 in 1899-1900 to 502 in 1900-1901 in counties, and in boroughs the average apparently decreased from 510 to 508, but this decline is probably due to the population in the earlier years having been estimated too high.

* *I.e.*, houses holding publicans' or accommodation licenses.
† Excluding persons on shipboard and adjacent islands.

The annual fees paid for licenses are—

	£
(1.) For a publican's license—	
(*a.*) Within the limits of a borough or town district ..	40*
(*b.*) Outside the aforesaid limits	25
(2.) For a New Zealand wine license	1
(3.) For an accommodation license, a sum to be determined by the Licensing Committee, not exceeding..	20
(4.) For a packet license—	
(*a.*) For a vessel exceeding 50 tons register	10
(*b.*) For a vessel not exceeding 50 tons register	5
(5.) For a wholesale license	20
(6.) For a conditional license, according to duration of license, a sum not exceeding	30

The approximate capital value of the licensed houses in the counties was stated at £752,015, and the same for certain of the boroughs at £225,242. There was, besides, an annual value of £127,000 for other licensed houses in the boroughs, which, capitalised at 6 per cent., would represent £2,116,666. The capital value of all licensed houses would therefore be about £3,093,923.

The total number of persons engaged in or connected with the sale or manufacture of wine, spirits, beer, cordials, &c., was returned at the census of 1896 as under :—

	Males.	Females.	Persons.
Hotelkeeper	1,334	204	1,538
Relative assisting	157	348	505
Manager, clerk	67	11	78
Hotel, club, &c., servant	1,136	2,075	3,211
Manager, secretary, steward of club-house	32	3	35
Barman, barmaid	196	210	406
Wine, spirit, ale merchant	43	..	43
Assistant	5	1	6
Clerk, book-keeper, accountant, traveller, storeman	44	..	44
Cordial, &c , merchant, salesman ..	5	..	5
Brewer, bottler	234	4	238
Manager, clerk, traveller	53	..	53
Relative assisting, apprentice	18	..	18
Cellarman, assistant, carter, &c. .. .	151	1	152
Maltster and assistants	118	..	118
Distiller, bottler	2	..	2
Wine-maker, bottler	9	..	9
Cordial, &c., maker	293	6	299
Clerk, book-keeper, traveller	6	..	6
Totals	3,903	2,863	6,766

Local Option Poll.

Under "The Alcoholic Liquors Sale Control Act, 1893," each electoral district constituted for the election of a member of the House of Representatives is a licensing district, and electors for the House of Representatives are also electors under the Licensing Acts.

* Between the hours of six in the morning and ten at night. For an eleven o'clock license an additional £5 must be paid.

Under the Amendment Act of 1895 the licensing poll is taken at the same time as the general election of members of the House of Representatives. The questions for the decision of the voters are,—

(1.) Whether the number of licenses existing in the district shall continue?

(2.) Whether the number shall be reduced?

(3.) Whether any licenses whatever shall be granted?

The voter may vote for one or two of these proposals, but no more.

The method of determining the result of the poll in each district by the Returning Officer is as follows:—

(1.) If the number of votes recorded in favour of the continuance of existing licenses is an absolute majority of all the voters whose votes were recorded, the proposal is to be deemed to be carried, and the licenses continue until the next poll, subject to certain provisions in special cases.

(2.) If the number of votes recorded in favour of a reduction in the number of licenses is an absolute majority of all the voters whose votes were recorded, the proposal is deemed to be carried, and supersedes the proposal for continuance of licenses. The Licensing Committee then reduces publicans' licenses by not less than 5 per cent. or more than 25 per cent. of the total number existing, excluding forfeitures. Provision is made that when a reduction vote is carried the licenses shall be reduced by one at least when the total number does not exceed ten, two when not over twenty, and three at least when the licenses exceed thirty.

(3.) If the number of votes recorded in favour of the proposal that no license shall be granted is not less than three-fifths of all the voters whose votes were recorded, the proposal is declared to be carried, and supersedes the proposal for reduction and for continuance, and no licenses can be granted.

(4.) If none of the proposals respecting licenses are carried by the prescribed majority the licenses continue as they are until next poll, subject to certain provisions in special cases.

The result of the poll taken on 6th December, 1899, for each licensing district has been given in the Year-book for 1901 and previously.

Fire Brigades.

On the 31st December, 1901, there were ninety fire brigades in the colony, with a total strength of 1,663 (252 officers and 1,411 men). Compared with the numbers in 1900, these figures show a decrease of one brigade and 8 officers, but an increase of 238 men. There is also a salvage corps in Auckland, consisting of one captain and six men, not included in the figures given above, which works in conjunction with the city and suburban fire brigades.

SECTION XVI.—REPRESENTATION, AND THE GENERAL ELECTION OF 1899.

Representation.

The colony is at present (June 1902) divided in accordance with the Representation Act Amendment Acts, 1887 and 1889, into sixty-two districts for purposes of European representation—fifty-eight rural districts having one member each, and four city electorates three members each. This division was made on the basis of the results of the census of 1896. The Act of 1889 directed that in computing for electoral purposes the population of the colony 28 per cent. shall be added to the country population—*i.e.*, all persons living outside towns of 2,000 inhabitants and over. The total population of the colony (other than Maoris), with the addition aforesaid, having been ascertained, was then divided by the number of members (70), and the quotient thus obtained formed the quota. The four city electoral districts (which have three members each) are so defined in extent that the population shall be three times the quota. Inasmuch as it would be impossible to divide the country into a given number of districts all having exactly the precise quota of population, the law permitted the Commissioners to make an allowance of 750 persons by way of addition to or deduction from the population of rural districts, and of 100 in case of city electorates, with special provision for districts where the population is partly city and partly rural.

But, although the above describes the existing state of affairs, "The Representation Act, 1900," provides that when the present General Assembly expires by effluxion of time (December), or other sooner determination, the number of members to be thereafter elected to the House of Representatives shall be seventy-six, instead of seventy, and for six new districts, one for each additional member. It also increases the allowance of 750 persons within or outside the quota to 1,250 persons in the formation of rural districts. Thus, more consideration can be given to community of interest, facilities of communication, and topographical features, in constructing the districts.

"The Representation Act Amendment Act, 1896," provides for two permanent Commissions, called the "North" and "Middle" Island Representation Commissions. These sit together as a joint Commission for the purpose of fixing the number of districts for the North and Middle Islands respectively, but afterwards act separately and independently of one another, the duties and functions of each being confined to their respective island.

The North Island with its adjacent islands includes at the present time 30 electoral districts, having 34 members; the Middle and Stewart Islands having 32 districts and 36 members. In 1893 the North Island returned 31 and the Middle Island 39 members. But movement of population between 1891 and 1896 has resulted in the addition of three members to the North, and a corresponding reduction in the Middle Island.

These districts are, as above stated, for purposes of European representation. But the colony is again divided into four districts for purposes of Maori representation, under the electoral law, each district having one Native member elected by the Maoris; making the House of Representatives consist of 74 members altogether—70 Europeans and 4 Maoris. After the next general election the number will be 80 members in full.

The Electoral Acts.

By the principal Act, which came into force in 1893, the great step was taken of admitting women to the franchise. The Amendment Act of 1896 abolished the non-residential or property qualification, with a saving clause in favour of then-existing registrations in respect of such qualification.

[Electors are enrolled on sending to the Registrar a claim and declaration according to a prescribed form. There are no fixed periods for making up fresh electoral rolls, but the rolls are revised and printed before a general election, and also for any district in which a bye-election is to take place. Nor are there any fixed periods for the revising and purifying of the rolls. It is the duty of the Registrar of each electoral district to keep the rolls revised and complete.]

The General Election of 1899.

Remarks on the General Election of 1899, with the result exhibited in tabular form and particulars of the polling, were given in detail in the Year-book for 1901, pp. 320 to 328.

SECTION XVII.—OCCUPATION OF LAND; AND LIVE-STOCK.

THE occupation of land must not be confused with ownership,* because there are large parcels of lands held which are unused and unoccupied. Neither can lands occupied be properly compared with the returns of Crown lands alienated or in process of alienation, for certain lands have passed into the hands of Europeans which were never made waste lands of the Crown.

The occupied lands of the colony for 1901–1902 have been returned by the Department of Agriculture at 35,507,889 acres, including Crown lands leased for pastoral purposes only, or 596,316 acres in excess of the quantity for the preceding year.

Tables are given showing the numbers and acreages of holdings, grouped according to size, for the last five years in which the Department of Agriculture has compiled the information.

In 1895 the holdings of over 1 acre in extent, as returned to the Registrar-General, numbered only 46,676. Holdings occupied by Maoris were excluded, besides holdings of exactly one acre, also gardens and orchards attached to residences.†

OCCUPIED LANDS: HOLDINGS.

[This and the succeeding statement deal with the full extent of occupied land, *including* Crown pastoral leases.]

Sizes of Holdings.	No. of Holdings.				
	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-02.
1 acre to 10 acres, inclusive	17,133	17,230	17,454	17,468	17,817
10 acres to 50 "	11,182	11,426	11,505	11,399	11,531
50 " 100 "	7,068	7,276	7,195	7,162	7,130
100 " 200 "	9,192	9,164	9,177	9,080	9,332
200 " 320 "	5,481	5,584	5,675	5,751	5,898
320 " 640 "	5,486	5,555	5,830	6,023	6,201
640 " 1,000 "	1,956	1,946	2,128	2,212	2,324
1,000 " 5,000 "	2,454	2,589	2,667	2,802	2,854
5,000 " 10,000 "	345	369	352	392	393
10,000 " 20,000 "	246	220	233	233	234
20,000 " 50,000 "	164	175	169	167	165
50,000 acres and over	102	105	100	97	103
	60,759	61,639	62,485	62,786	63,982

* The only information in reference to ownership of land, which is available, gives figures up to the year 1892. It is contained in Parliamentary Return B.-20A of that year and states the total number of owners of land (town and country holdings of all sizes) to be 91,501 for the colony. But the Commissioner of Taxes pointed out in his remarks that the most important figures (showing ownership of *productive* land) are those of freeholders outside boroughs and town districts, and excluding holdings of under 5 acres. These figures are:—

NEW ZEALAND OWNERS (OVER 5 ACRES).

Year 1892	38,935	Year 1886	34,450
" 1889	37,432	" 1883	30,764

† At the census of April, 1896, the actual number of persons described in the census schedules as having occupations necessitating their occupying holdings of land was 36,643. This number includes 31,577 farmers, 2,115 runholders, 1,402 market-gardeners, 619 horticulturists, 430 dairy-farmers, 225 fruit-growers, 175 nurserymen, 33 vignerons, 32 poultry farmers, 19 bee-farmers, and 16 others.

The holdings are shown to have increased by the number of 3,223 since 1897–98.

The total acreage of occupied land is given in the following table:—

OCCUPIED LANDS: ACREAGES.

Sizes of Holdings in Acres.	1897-98. Acres.	1898-99. Acres.	1899-1900. Acres.	1900-1901. Acres.	1901-02. Acres.
1 to 10 inclusive ...	68,929	68,671	70,280	71,387	73,954
10 " 50 " ...	317,321	315,651	322,936	320,158	324,620
50 " 100 " ...	558,798	570,503	568,716	556,868	560,888
100 " 200 " ...	1,396,699	1,401,171	1,404,581	1,389,120	1,431,532
200 " 320 " ...	1,431,406	1,469,850	1,475,195	1,493,761	1,543,749
320 " 640 " ...	2,492,275	2,568,462	2,688,231	2,772,325	2,836,767
640 " 1,000 " ...	1,611,267	1,649,580	1,731,636	1,843,235	1,924,982
1,000 " 5,000 " ...	5,165,119	5,364,539	5,495,467	5,715,047	5,849,516
5,000 " 10,000 " ...	2,416,149	2,579,773	2,451,073	2,591,497	2,525,849
10,000 " 20,000 " ...	3,501,576	3,274,623	3,201,355	3,272,741	3,285,879
20,000 " 50,000 " ...	5,251,819	5,448,033	5,535,541	5,417,990	5,578,887
50,000 and over " ...	9,769,121	9,675,403	9,477,632	9,467,444	9,571,246
	33,980,479	34,386,268	34,422,653	34,911,578	35,507,880

In regard to holdings, out of a total of 63,982 in 1902, the large proportion of 36,478, or 57·01 per cent., were from 1 to 100 acres in extent; 45,810 or 71·60 per cent., were from 1 to 200 acres; and 51,708, or 80·82 per cent., were from 1 to 320 acres in size. The total number over 320 acres was only 12,274, or 19·18 per cent. of the whole, thus indicating a considerable degree of moderately close settlement, although the area of the holdings over the 320 acres limit necessarily shows as very large in a table which includes the Crown pastoral leases.

The plan of excluding these leases from the table showing the holdings in classes has its advantages, though not now adopted.

From the total extent of occupied land shown for the colony, such of the area of the Crown pastoral leases *as has been distinguished by the enumerators* can be deducted, and comparison then made for the census years 1886 and 1891, and the Agricultural Department returns for 1901–1902. The figures are:—

—	Census Results, March, 1886.	Census Results, April, 1891.	Figures returned by Department of Agriculture, 1901–1902.
	Acres.	Acres.	Acres.
Total area of occupied land (after deducting Crown pastoral leases)	17,077,074	19,951,925	27,333,808

The acreage shown in the returns as held on Crown pastoral lease would appear to have been understated in the returns rendered by occupiers, for the table (which is given on the next page) shows a little more than eight millions of acres. The figures in the previous column headed "Held from Crown under various tenures" seem greater than they should be, judging from the Lands Department returns. Possibly there may have been some misplacements, and caution is advised in using the numbers in the last two columns.

OCCUPATION OF LAND: TENURE.

Provincial Districts.	Total Area of Holdings.	Freehold.	Leased from Private Individuals or Public Bodies.	Leased from Natives.	Held from Crown under Different Tenures.	Held under Pastoral Lease
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland ..	5,677,445	3,897,193	495,243	378,271	851,710	55,028
Taranaki ..	1,039,723	554,024	216,718	88,672	179,824	485
Hawke's Bay ..	3,336,744	1,789,457	333,621	895,194	243,012	75,460
Wellington ..	3,844,577	2,452,528	494,844	374,296	519,795	3,114
Marlborough ..	2,278,946	820,866	67,441	20,515	795,815	574,309
Nelson ..	2,025,307	1,007,017	312,941	20,468	216,945	467,936
Westland ..	498,498	62,984	23,516	2,191	242,255	167,552
Canterbury ..	6,493,592	2,723,369	1,047,958	11,929	479,893	2,230,443
Otago ..	10,313,057	2,929,473	1,161,030	10,899	1,611,901	4,599,754
Totals ..	35,507,889	16,236,911	4,153,312	1,802,435	5,141,150 *	8,174,081 *

* For remarks as to the accuracy of the figures in the columns see previous page.

It would appear that holders of their lands from the Crown do not return to collectors so much as the quantity on which they pay rent to Government. The acreages stated to be held under Crown pastoral lease do not agree with the tables of the Lands Department.

Arranged according to the number of holdings, the provincial districts stand in order as under:—

Auckland	15,994 holdings.
Otago	13,833 "
Canterbury	10,853 "
Wellington	10,537 "
Taranaki	4,389 "
Hawke's Bay	3,153 "
Nelson	3,102 "
Marlborough	1,438 "
Westland	683 "

The occupied holdings of the North Island now considerably outnumber those of the Middle Island, the numbers being: North Island, 34,073; Middle Island, 29,909. For the year 1896–97 the returns showed 29,535 holdings for the Middle Island, against 29,369 for the North, besides 36 holdings at the Chatham Islands, of which no account was taken for the last five years.

The full details of holdings and acreages, classified according to size, for the year 1901–1902 will be found in the table on the following page.

Occupation of Land: Number and Area of Holdings (including Crown Pastoral Leases).

As compiled by the Department of Agriculture.

Table showing for the Year 1901–1902 the Occupied Holdings and the Acreages (including Crown Pastoral Leases) in Groups of Sizes, according to the Provincial Districts.

Provincial Districts.	Total of Holdings.	1-10 Acres, inclusive.	Over 10-50 Acres, inclusive.	Over 50-100 Acres, inclusive.	Over 100-200 Acres, inclusive.	Over 200-320 Acres, inclusive.	Over 320-640 Acres, inclusive.	Over 640-1,000 Acres, inclusive.	Over 1,000-5,000 Acres, inclusive.	Over 5,000-10,000 Acres, inclusive.	Over 10,000-20,000 Acres, inclusive.	Over 20,000-50,000 Acres, inclusive.	Over 50,000 Acres.
Auckland: Area in acres ...	5,677,445	18,174	88,136	160,630	363,402	379,575	656,944	482,122	1,199,561	511,241	500,932	608,131	758,595
Number of holdings ...	*15,994*	*4,627*	*2,881*	*2,011*	*2,336*	*1,442*	*1,438*	*611*	*611*	*76*	*35*	*17*	*9*
Taranaki: Area in acres ...	1,039,723	2,830	16,786	56,847	172,730	150,386	221,905	111,818	278,375	14,046	14,000	...	...
Number of holdings ...	*4,359*	*552*	*567*	*737*	*1,149*	*691*	*505*	*146*	*160*	*2*	*1*	...	...
Hawke's Bay: Area in acres ...	3,336,744	4,964	17,451	18,635	38,785	47,893	141,347	81,962	466,417	389,276	572,962	1,057,420	509,612
Number of holdings ...	*3,165*	*1,118*	*654*	*240*	*258*	*186*	*239*	*109*	*211*	*61*	*44*	*26*	*7*
Wellington: Area in acres ...	3,844,577	12,250	48,552	91,199	268,141	247,634	490,737	391,640	988,416	420,753	400,363	235,503	189,419
Number of holdings ...	*10,537*	*2,785*	*1,838*	*1,141*	*1,688*	*948*	*1,066*	*468*	*476*	*84*	*35*	*8*	*2*
Marlborough: Area in acres ...	2,278,946	1,542	4,681	8,659	22,333	31,224	79,906	70,467	245,723	151,766	195,823	375,379	1,091,433
Number of holdings ...	*1,438*	*468*	*170*	*108*	*164*	*113*	*165*	*90*	*116*	*19*	*16*	*11*	*9*
Nelson: Area in acres ...	2,025,307	3,103	18,120	28,234	73,089	74,995	133,738	89,603	232,184	37,052	138,680	362,699	833,810
Number of holdings ...	*3,102*	*765*	*647*	*359*	*507*	*272*	*291*	*114*	*115*	*6*	*8*	*11*	*7*
Westland: Area in acres ...	498,498	758	4,098	6,448	16,925	14,356	23,531	18,289	76,341	83,166	102,220	152,406	...
Number of holdings ...	*683*	*201*	*128*	*82*	*112*	*52*	*48*	*18*	*19*	*10*	*7*	*6*	...
Canterbury: Area in acres ...	6,493,592	14,964	62,141	83,950	168,062	227,135	410,449	278,095	1,082,250	397,590	470,005	1,097,648	2,176,213
Number of holdings ...	*10,863*	*3,359*	*2,243*	*1,161*	*1,272*	*887*	*906*	*326*	*546*	*60*	*33*	*35*	*25*
Otago: Area in acres ...	10,313,057	15,359	64,653	101,320	268,095	370,551	708,230	450,980	1,260,249	520,959	830,784	1,689,701	4,012,164
Number of holdings ...	*13,833*	*3,942*	*2,408*	*1,301*	*1,856*	*1,407*	*1,543*	*543*	*610*	*75*	*55*	*51*	*44*
Totals { Area in acres ...	35,507,889	73,954	324,620	560,888	1,431,532	1,543,749	2,836,767	1,924,982	5,849,516	2,525,849	3,285,879	5,578,887	9,571,246
Totals { *Number of holdings*	*63,982*	*17,817*	*11,631*	*7,130*	*9,332*	*6,898*	*6,201*	*2,324*	*2,854*	*393*	*234*	*166*	*103*

LIVE-STOCK.

A comparative table is presented showing the increase in live-stock since the year 1858. The figures are taken from the census as far as 1891, but for 1895-96 and following years the results of the enumeration made annually by the Department of Agriculture under "The Agricultural and Pastoral Statistics Act, 1895," have been made use of.

Year.	Horses.	Asses and Mules.	Cattle.	Sheep.	Goats.	Pigs.	Poultry.
1858 ..	14,912	122	137,204	1,523,324	11,797	40,734	*
1861 ..	28,275	153	193,285	2,761,383	12,191	43,270	236,098
1864 ..	49,409	339	249,760	4,937,273	12,005	61,276	378,414
1867 ..	65,715	323	312,835	8,418,579	11,964	115,104	676,065
1871 ..	81,028	397	436,592	9,700,629	12,434	151,460	872,174
1874 ..	99,859	267	494,917	11,704,853	14,276	123,921	1,058,198
1878 ..	137,768	241	578,430	13,069,338	14,243	207,337	1,323,542
1881 ..	161,736	362	698,637	12,985,085	11,223	200,083	1,566,114
1886 ..	187,382	297	853,358	16,564,595	10,220	277,901	1,679,021
1891 ..	211,040	348	831,831	18,128,186	9,055	308,812	1,790,070
1895-96	237,418	426	1,047,901	19,826,604†	*	239,778	*
1896-97	249,813	434	1,138,067	19,138,493†	*	209,834	*
1897-98	252,834	393	1,209,165	19,687,954†	*	186,027	*
1898-99	258,115	534	1,203,024	19,673,725†	*	193,512	*
1899-1900	261,931	459	1,222,139	19,348,506†	*	249,751	*
1900-1901	266,245	480	1,256,680	19,355,195†	*	250,975	*
1901-1902	279,672	406	1,361,784	20,233,099†	*	224,024	*

* Not enumerated. † Numbers for April, 1895, 1896, 1897, 1898, 1899, 1900, and 1901.

The stock owned by Maoris in the year 1901, which is included above, comprised 317,436 sheep, and 36,943 head of cattle. The number of horses is not specified, but is known to be large.

TABLE SHOWING FOR EACH COUNTY IN NEW ZEALAND THE NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS IN 1901.

County.	Horses, November, 1901.	Cattle, including Calves, November, 1901.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1901.	Pigs, November, 1901.
Mongonui ..	1,958	8,045	1,287	27,466	3,573
Whangaroa ..	790	1,687	107	7,425	1,293
Bay of Islands ..	2,436	10,523	1,814	36,493	1,757
Hokianga ..	2,102	4,949	1,190	9,698	1,866
Rodney	1,951	12,451	2,820	78,585	590
Whangarei ..	4,245	26,155	7,263	36,784	1,722
Otamatea ..	1,631	13,628	2,119	51,518	868
Hobson	3,023	20,694	3,263	18,455	3,613
Waitemata ..	2,345	11,517	3,651	38,412	1,249
Eden	5,997	6,561	3,683	2,882	2,483
Manukau ..	8,218	48,143	17,071	94,933	6,166
Coromandel ..	717	3,072	819	13,378	526
Thames ..	1,861	4,728	1,749	7,455	1,862
Ohinemuri ..	2,025	5,897	1,643	4,286	3,029
Waikato ..	3,190	21,409	5,417	72,822	3,104

TABLE SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, ETC.—*continued.*

County.	Horses, November, 1901.	Cattle, including Calves, November, 1901.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1901.	Pigs, November, 1901.
Raglan	3,026	24,887	3,292	84,904	3,144
Waipa	2,159	12,124	3,714	37,397	1,860
Piako	2,976	31,764	4,276	170,519	2,058
West Taupo and Kawhia	4,868	18,144	1,334	34,870	8,196
East Taupo and Rotorua	2,067	2,413	241	29,241	1,959
Tauranga ..	2,400	14,604	2,211	3,565	1,705
Whakatane ..	1,307	4,381	1,080	22,664	877
Opotiki	1,455	6,437	1,522	18,737	875
Waiapu ..	3,913	16,049	381	327,039	5,410
Cook	6,993	40,007	3,489	887,066	2,570
Clifton	1,309	17,947	4,226	26,102	1,124
Taranaki ..	5,805	70,381	28,668	30,806	6,617
Stratford ..	2,553	35,759	14,743	97,513	3,060
Hawera ..	6,210	74,338	29,044	168,714	7,677
Patea	2,944	26,545	6,587	241,257	1,816
Wairoa	3,237	9,916	759	543,413	722
Hawke's Bay ..	8,043	33,913	4,135	1,293,333	4,457
Patangata ..	2,781	30,281	614	762,223	647
Waipawa ..	5,449	41,532	9,060	699,452	2,724
Waitotara ..	1,994	12,497	3,595	171,129	1,273
Wanganui ..	4,775	18,323	4,466	393,922	3,655
Rangitikei ..	5,546	31,610	6,981	560,566	2,728
Oroua	5,620	35,894	15,039	326,318	6,283
Kiwitea ..	2,183	18,119	5,732	273,028	2,479
Pohangina ..	999	8,340	2,697	120,171	1,451
Manawatu ..	2,457	19,411	5,840	192,169	2,588
Horowhenua ..	2,782	20,326	6,341	151,852	2,981
Hutt	4,877	14,150	7,791	207,574	3,272
South Wairarapa ..	5,142	43,684	8,043	628,414	4,757
Masterton ..	3,259	22,430	2,944	560,640	1,548
Castlepoint ..	478	6,095	395	149,788	71
Akitio	1,210	11,196	1,095	148,657	486
Pahiatua ..	1,890	20,714	7,298	219,832	2,879
Eketahuna ..	1,018	8,365	3,752	71,529	1,623
Mauriceville ..	363	3,285	1,479	63,949	487
Marlborough ..	3,495	4,687	2,248	515,022	2,019
Sounds	716	4,452	1,503	149,548	1,277
Kaikoura ..	1,052	2,726	909	157,242	404
Collingwood ..	1,173	6,673	2,270	45,321	1,997
Waimea ..	4,756	12,316	5,020	213,037	4,197
Buller	485	3,867	1,521	2,146	659
Inangahua ..	900	6,496	1,436	21,313	1,077
Amuri	1,383	3,877	403	391,718	181
Cheviot	856	1,322	537	195,273	705
Westland ..	1,439	10,783	2,417	16,306	710
Grey	824	6,184	1,813	10,330	953
Ashley	8,084	16,114	6,373	814,615	8,950
Selwyn	15,427	27,953	14,461	705,923	22,400
Akaroa	2,631	23,169	5,414	244,594	2,724
Ashburton ..	9,287	9,316	3,568	881,633	7,929
Geraldine ..	4,133	6,619	2,140	674,490	3,359
Levels	3,401	5,082	2,017		1,765

TABLE SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, ETC.—*continued.*

County.	Horses, November, 1901.	Cattle, including Calves, November, 1901.	Dairy Cows, included in foregoing.	Sheep, including Lambs, April, 1901.	Pigs, November 1901.
Waimate ..	5,235	8,319	2,152	602,705	3,409
Mackenzie ..	1,504	2,262	695	394,927	447
Waitaki	6,094	19,372	7,397	571,502	4,114
Waihemo ..	1,377	3,932	1,636	122,322	575
Waikouaiti ..	1,523	10,090	5,331	77,077	1,963
Peninsula ..	866	7,253	4,404	1,496	1,061
Taieri	7,141	24,485	9,427	220,390	4,735
Bruce	3,519	9,999	3,305	177,059	1,716
Clutha	4,690	17,968	5,361	314,144	2,321
Tuapeka ..	3,738	5,867	2,179	376,176	1,062
Maniototo ..	2,153	5,907	1,375	330,165	539
Vincent	2,281	4,820	1,322	302,628	903
Lake	1,448	3,795	900	150,851	462
Southland ..	16,709	60,653	20,235	890,942	8,725
Wallace and Fiord	4,816	19,774	4,846	442,406	1,410
Stewart Island ..	9	332	117	853	16
Totals ..	279,672	1,361,784	381,492	20,233,099	224,024

*Not including 39,001 heifers over two years old intended for dairying.

Live-stock in Australasia.

The following gives the number of the principal kinds of live-stock in Australasia for the year 1900–1901 :—

State or Colony.	Sheep.	Cattle.	Horses.	Pigs.
Queensland	10,339,185	4,078,191	456,788	122,187
New South Wales	40,020,506	1,983,116	481,417	356,577
Victoria	10,841,790	1,602,384	392,237	350,370
South Australia	5,283,247	396,486	179,352	91,184
Western Australia	2,431,861	338,665	68,231	61,696
Tasmania	1,683,956	124,118	31,607	68,291
	May, 1901.	Nov., 1900.	Nov., 1900.	Nov., 1900.
New Zealand	20,233,099	1,256,680	266,245	250,975

New Zealand thus takes second place in order for number of sheep, and fourth for the number of her cattle and horses.

Sheep.

The returns made to the Department of Agriculture show a smaller number of sheep for the years 1886 and 1891 than the census figures given previously, because the account was taken later in the year. The particulars are given for sixteen years, distinguishing the number for the North from that in the Middle Island.

According to these returns, the flocks of the North Island increased from 5,285,907 sheep in the year 1886 to 10,218,945 in 1901, or at the rate of over 93 per cent., while sheep in the Middle

Island increased from 9,888,356 to 10,014,154, a gain of 1·27 per cent. in the same period. For the North Island the increase during the sixteen years was 4,933,038 sheep, while in the Middle Island there was an increase of 125,798.

Year.	North Island.	Middle Island.	Total.
1886	5,285,907	9,888,356	15,174,263
1887	5,506,485	9,649,141	15,155,626
1888	5,668,996	9,373,202	15,042,198
1889	5,990,244	9,433,084	15,423,328
1890	6,588,346	9,527,767	16,116,113
1891	7,159,927	9,593,825	16,753,752
1892	8,204,029	10,366,723	18,570,752
1893	8,685,361	10,695,008	19,380,369
1894	9,169,352	11,061,477	20,230,829
1895	8,994,646	10,831,958	19,826,604
1896	9,131,736	10,006,757	19,138,493
1897	9,540,717	10,147,237	19,687,954
1898	9,864,945	9,808,780	19,673,725
1899	9,953,399	9,395,107	19,348,506
1900	9,998,173	9,357,022	19,355,195
1901	10,218,945	10,014,154	20,233,099

There was an increase of 877,904 in the total number of sheep since April, 1900, by the above figures, and an increase between 1891 and 1901 amounting to 3,479,347, or at a rate of 20·77 per cent. The export and local consumption of wool developed from 111,537,546 lb. for the year ended September, 1891, to 147,694,713 lb. for the corresponding year of 1901. The export of sheepskins and pelts, which in 1890 was 2,292,521 in number, rose to 4,601,531 in 1901.

Over a series of years the number of sheep has been well maintained, although the slaughter needed for the export of frozen mutton increased to upwards of three millions and a quarter of sheep and lambs in 1901.

The proportion of small flocks of sheep, until 1901, increased very considerably, and with smaller flocks the rabbit difficulty is easier to master than with large ones.

NUMBER OF FLOCKS, 1886, 1891, 1896, 1900, AND 1901.

Size of Flocks.	1886.	1891.	1896.	1900.	1901.
Under 500	6,024	8,272	12,028	12,239	11,700
500 and under 1,000	1,189	1,691	2,605	2,810	3,059
1,000 „ 2,000	747	969	1,460	2,621*	2,877*
2,000 „ 5,000	532	666	892		
5,000 „ 10,000	263	287	340	352	397
10,000 „ 20,000	228	239	231	196	189
20,000 and upwards	166	169	147	139	138
	9,149	12,293	17,703	18,357	18,360

	1900.	1901.
* From 1,000 to 2,500	1,971	2,189
„ 2,500 to 5,000	650	688
	2,621	2,877

The average size of the flocks is found to have been 1,659 sheep for 1886, 1,363 for 1891, 1,081 in 1896, 1,040 in 1899, 1,054 in 1900, and 1,102 in 1901.

Of the provincial districts, that of Canterbury had most sheep in 1901, Wellington came next, and Otago occupied the third place. The full particulars, with increases or decreases since 1900, are:—

Provincial Districts.	No. of Sheep in 1901.	No. of Sheep in 1900.	Increase.	Decrease.
Canterbury ..	4,318,887	3,951,008	367,879	..
Wellington ..	4,239,538	4,082,415	157,123	..
Otago ..	3,978,011	3,746,750	231,261	..
Hawke's Bay ..	3,298,421	3,327,364	..	28,943
Auckland ..	2,116,594	2,079,446	37,148	..
Nelson ..	868,808	841,513	27,295	..
Marlborough ..	821,812	789,218	32,594	..
Taranaki ..	564,392	508,948	55,444	..
Westland ..	26,636	28,533	..	1,897
	20,233,099	19,355,195	877,904	Net increase.

Seven of the provincial districts show an increase in the number of sheep in 1901 when compared with the previous year's returns, aggregating 908,744, to which gain Canterbury contributed 367,879, Otago 231,261, Wellington 157,123, Taranaki 55,444, Auckland 37,148, Marlborough 32,594, and Nelson 27,295. The other two provincial districts show decreases (Hawke's Bay 28,943, and Westland 1,897), and thus reduce the gain for the whole colony to 877,904, as shown above.

It has been estimated that the annual consumption of mutton in New Zealand is equivalent to 2·25 sheep per inhabitant, and that the number of sheep required in the present year (1902) for food will be about 1,904,000. (Maoris, for the purposes of this calculation, have been included.)

Two important advantages that sheep-farming has in New Zealand are mentioned by Mr. J. A. Johnstone in the Year-book for 1894. They are: (1) the low cost of the production of mutton, (2) the high percentage of natural increase. Respecting the first point, it has been proved beyond all doubt that, under ordinary conditions, the very choicest of mutton can be so produced as to pay the grower handsomely when sold at 2d. per pound for the carcase at the nearest shipping-port. To the British sheep-farmer this statement, of course, is valueless by itself; but, when told that this mutton would cost the London butcher, delivered *ex* steamer at the dock, only 3½d. per pound, he will be able to realise in some measure what a wonderful grazing-country New Zealand is, and to understand how it is that settlers of the right stamp have done so well. Then, with regard to the high percentage of increase, there need only be cited a few average returns from well-known flocks to show what excellent lambings New Zealand farmers obtain under good management.

LAMBING RETURNS.—AVERAGES.

Locality.	Breed of Flock.	Breed of Rams.	Breed of Ewes.	No. of Ewes.	Percentage of Lambs.	Remarks.
North Island ..	Lincoln	Lincoln	Lincoln	7,517	81·04	Land merely surface-sown in English-grass pasture.
" ..	"	"	"	5,301	85·05	
" ..	"	"	¾ Lincoln	12,177	100·00	
" ..	Romney	Romney	Romney	1,141	96·17	
" ..	Lincoln	Southd'n	Lincoln	2,033	94·71	
Middle Island	Merino	Merino	Merino	14,765	75·36	Mountainous country in n'tive past're, unimproved.
" ..	"	B. Leic'str	"	4,235	88·94	
" ..	Cross-bred	"	Cross-bred	8,624	80·82	
" ..	Half-bred	"	Half-bred	2,747	82·79	
" ..	B. Leic'str	"	B. Leic'str	778	90·77	
" ..	Lincoln	Lincoln	Lincoln	452	88·08	In English-grass pasture.
" ..	R. Marsh	R. Marsh	R. Marsh	253	111·46	
" ..	E. Leic'str	E. Leic'str	E. Leic'str	464	93·34	
" ..	Shropshire	Shropshire	Shropshire	168	97·41	
" ..	Southd'n	Southd'n	Southd'n	114	96·87	

The above returns are fair average ones, but much higher might have been shown if exceptional cases had been selected.

As showing the actual cost of managing two large estates in New Zealand (Middle Island), No. 1 carrying 20,000 cross-bred sheep, and No. 2 carrying 40,000, the subjoined table may prove interesting :—

	No. 1. Per Head.	No. 2. Per Head.
	s. d.	s. d.
Cost of shearing, including scouring and putting wool f.o.b.	0 6·5	0 6·3
Management, shepherding, dipping, &c.	0 10	0 9·6
Cost of providing special feed (turnips, green feed, chaff, &c.)	1 1	1 6·3
Cost of renewing English grass ..	2 0	1 5
Total per head	4 5·5	4 3·2

Cattle.

The increase of cattle between 1891 and 1896 was 216,070, or at the rate of 25·98 per cent. The rapid development of the butter and cheese industry, represented in great part by the export figures given in the comparative table on page 187, created a requirement for milch cows, which increased in number from 206,906 in 1891 to 276,217 in 1896, or at the rate of 33·50 per cent.

The cattle as enumerated in 1901–1902 for each provincial district are given in the next table. Here is shown the substantial increase of 105,104 head of all classes over the number returned in 1900–1901, and of no less than 13,887 in the number of cows and heifers for dairy purposes.

Provincial District.	Bulls for Stud Purposes.	Steers over Two Years Old.	Cows and Heifers for Dairy Purposes.	Cows and Heifers for Breeding Purposes.	Cows and Heifers for Fattening.	Steers and Heifers under Two Years not otherwise enumerated.	Totals.
Auckland	5,474	67,619	85,328	55,632	13,594	142,602	370,249
Taranaki	3,471	27,543	91,656	9,582	7,359	85,359	224,970
Hawke's Bay ..	1,734	22,593	15,812	34,937	3,613	36,973	115,662
Wellington ..	4,838	42,548	92,612	44,441	8,486	101,514	294,439
Marlborough ..	249	859	4,939	377	517	4,924	11,865
Nelson	578	4,422	12,589	1,689	2,306	12,967	34,551
Westland	268	4,060	4,707	2,112	920	4,900	16,967
Canterbury ..	1,473	10,226	39,596	2,257	5,267	40,015	98,834
Otago	3,143	22,940	73,254	15,099	8,205	71,606	194,247
Totals, 1901–1902..	21,228	202,810	420,493*	166,126	50,267	500,860	1,361,784
1900–1901..	20,196	198,884	406,606*	150,630	52,403	427,961	1,256,680
Increase, 1901–1902	1,032	3,926	13,887	15,496	..	72,899	105,104
Decrease, 1901–1902	..	..	..	..	2,136	..	..

*Including heifers over two years old intended for dairying: 34,190 in 1900–1901, and 39,001 in 1901–1902. For actual number of dairy cows in each county see table on pages 325–327.

Classified according to breed, the numbers for the two years under review are:—

Pure-bred—	1901–1902.	1900–1901.
Shorthorn	63,476	65,117
Hereford	6,598	5,618
Polled Angus	8,836	8,885
Ayrshire	4,705	4,609
Jersey	4,586	3,841
Other pure-breds	9,101	4,130
Crosses	1,264,482	1,164,980
Totals	1,361,784	1,256,680

Out of a total of 1,361,784 cattle in the colony, the North Island is shown to have had 1,005,320, or 74 per cent., while the Middle Island had 356,464, or 26 per cent. Similarly, the dairy cows and heifers intended for dairying in the North Island numbered 285,408, and in the Middle Island 135,085.

Thus, the North Island, which now leads as regards number of sheep, contains more than twice as many dairy cows and other cattle as the Middle Island.

Of the total number of cattle (1,361,784) given above, 381,492 were dairy cows. It is found impossible to give a statement of the actual amount of butter and cheese made, even at the factories only. All that can be said is that there were in October, 1901, 254 cheese and butter factories and creameries, with 255 skim-

ming-stations, reported to the Department of Agriculture. But very few of these factories made any return to the department of their output for the previous year, and it is therefore impossible to arrive at the total quantity of cheese and butter made. The census returns for March, 1901 show there were then 247 factories and 202 creameries, the annual output during the year 1900 amounting to 29,758,310 lb. of butter and 139,687 cwt. of cheese.

Horses.

The increase in horses is shown for three census years:—

Census Years.	Number of Horses.	Numerical Increase.	Increase per Cent.
1886	187,382	23,658	12·63
1891	211,040		
1896	237,418	26,378	12·50

At the enumeration made in 1901–1902 (November to January), the number of horses was found to have increased to 280,078 (including 406 mules and asses), for which particulars are given. It will be seen that the Provincial District of Auckland had by far the most horses, Otago and Canterbury following, Wellington taking fourth place.

Provincial District.	Entires.	Geldings.	Mares over Two Years old.	Mares with Foal at Foot, or to foal this Season.	Colts and Fillies under Two Years old.	Totals.
Auckland ..	780	33,411	22,298	7,456	9,938	73,883
Taranaki ..	145	8,096	6,455	1,990	2,138	18,824
Hawke's Bay ..	211	9,206	6,529	1,809	1,781	19,536
Wellington ..	467	19,979	15,122	4,530	4,529	44,627
Marlborough ..	42	2,349	1,812	484	578	5,265
Nelson	99	4,140	3,368	957	991	9,555
Westland ..	38	1,098	701	203	226	2,266
Canterbury ..	420	22,169	17,371	4,644	5,127	49,731
Otago	394	24,421	19,532	5,176	6,868	56,391
Totals, 1901–1902	2,596	124,869	93,188	27,249	32,176	280,078*
" 1900–1901	2,465	120,932	93,487	22,017	27,824	266,725*
Increase ..	131	3,937	..	5,232	4,352	13,353
Decrease ..	..	..	299	..	..	..

* Including 406 mules and asses in 1902, and 480 in 1901.

Classified according to breed, the numbers for the two years under review are:—

	1901–1902.	1900–1901.
Thoroughbred	6,545	6,118
Hunter and hackney	26,736	26,917
Carriage and trotting	19,899	18,999
Light ordinary	114,321	106,067
Draught	99,604	97,469
Ponies under 14 hands	12,567	10,675
Mules and asses	406	480
Totals	280,078	266,725

It has long been expected that the export of New Zealand horses to Australia and India would assume large proportions. So far, however, the trade has not developed to the extent anticipated. The opinion has been often expressed that more might be done than has been in the past. The following figures will show the position for the years 1885, 1890, 1895, 1896, and 1898 to 1901 :—

Exported to	1885.	1890.	1895.	1896.	1898.	1899.	1900.	1901.
Victoria	133	92	10	22	41	12	29	38
New South Wales	2,687	197	53	53	39	70	19	55
Queensland	..	..	..	..	..	..	2	..
Tasmania	113	27	1	1	1	16	9	5
Fiji	32	57	12	2	3	4	16	50
Bengal	34	235	94	151	116	105	69	106
Brazil	..	2	..	..	..	..	..	..
South Sea Islands	13	18	15	14	9	6	8	8
United Kingdom	..	..	5	6	1	2	3	1
United States of America (W. Coast)	10	..	3	..	..	1	1	..
Cape Colony	..	..	..	..	..	..	600	2
Natal	..	..	..	..	..	2	..	..
Singapore	..	..	..	..	..	1	..	..
	3,022	628	193	249	210	219	756	265

The military requirements for the Cape Colony caused an increase for the year 1900.

Pigs.

Pigs have decreased since 1891, when the number was 308,812, against 224,024 in 1901–1902. The figures given in the accompanying table are those compiled by the Agricultural Department, and for 1901–1902 show a decrease of 26,951 in the total number of pigs kept in the previous year. The Auckland Provincial District has far more pigs than any other.

NUMBER OF PIGS IN EACH PROVINCIAL DISTRICT.

Provincial District.	Boars for Stud Purposes.	Barrows and Sows over One Year old, for Fattening.	Sows kept solely for Breeding Purposes.	Barrows and Sows under One Year old.	Totals.
Auckland ..	1,483	9,787	8,985	41,600	61,855
Taranaki ..	457	2,363	2,769	14,705	20,294
Hawke's Bay ..	219	1,119	1,363	5,849	8,550
Wellington ..	1,001	2,440	5,688	29,432	38,561
Marlborough ..	96	517	504	2,583	3,700
Nelson	169	1,023	1,004	6,620	8,816
Westland ..	46	402	187	1,028	1,663
Canterbury ..	886	1,735	6,318	42,044	50,983
Otago	626	2,569	3,332	23,075	29,602
Totals, 1901–1902	4,983	21,955	30,150	166,936	224,024
" 1900–1901	5,608	27,423	34,876	183,068	250,975
Decrease ..	625	5,468	4,726	16,132	26,951

The approximate numbers of the different breeds were:—

	1901-1902.	1900-1901.
Pure Berkshire	34,891	37,882
Pure Yorkshire	3,549	5,635
Other pure-breds	2,194	1,272
Crosses	183,390	206,186
Totals	224,024	250,975

Ostrich-farming.

Ostrich farming has been attempted in New Zealand, both in Canterbury and Auckland. (See Year-book, 1897, page 313, and also special article in Part III. of Year-book of 1899, entitled "The Heir of the Moa.")

SECTION XVIII.—VITAL STATISTICS.

Births.

The number of births registered in the colony during 1901 was 20,491 or 26·34 in every 1,000 persons living. The rate is higher than those for the five preceding years, but from 1881 until the year 1899 there was a regular fall. The number of births registered in a year reached 19,846 in 1884, after which it fell to 17,876 in 1892, rising year by year to 18,955 in 1898, falling in 1899 to 18,835, but again rising to 19,546 in 1900, and 20,491 in 1901.

The birth-rate for 1901 was a little higher than that for 1896, but the rise over this period of six years is very slight. The recovery since 1899 is, however, satisfactory (1·22 per 1,000 persons).

The figures for each year are worthy of notice, especially in connection with the subsequent particulars given as to marriages solemnised and the growth of population :—

Year.	Number of Births.	Rate per 1,000 of Population.	Year.	Number of Births.	Rate per 1,000 of Population.
1882	19,009	37·32	1892	17,876	27·83
1883	19,202	36·28	1893	18,187	27·50
1884	19,846	35·91	1894	18,528	27·28
1885	19,693	34·35	1895	18,546	26·78
1886	19,299	33·15	1896	18,612	26·33
1887	19,135	32·09	1897	18,737	25·96
1888	18,902	31·22	1898	18,955	25·74
1889	18,457	30·07	1899	18,835	25·12
1890	18,278	29·44	1900	19,546	25·60
1891	18,273	29·01	1901	20,491	26·34

The marriages have increased numerically, and the population of the colony also.

Year.	Number of Marriages.	Mean Population (excluding Maoris).	Year.	Number of Marriages.	Mean Population (excluding Maoris).
1881	3,277	493,482	1892	4,002	642,245
1882	3,600	509,309	1893	4,115	661,349
1883	3,612	529,292	1894	4,178	679,196
1884	3,800	552,590	1895	4,110	692,417
1885	3,813	573,362	1896	4,843	706,846
1886	3,488	582,117	1897	4,928	721,609
1887	3,563	596,374	1898	5,091	736,260
1888	3,617	605,371	1899	5,461	749,984
1889	3,632	612,716	1900	5,860	763,594
1890	3,797	620,780	1901	6,095	777,968
1891	3,805	629,783			

In the year 1881 there were in New Zealand 5·72 births to every marriage in the previous year, and in 1901 the proportion had fallen to 3·50 births to each marriage.

In the Australian States a similar decrease is noticeable. In Victoria the number of children to a marriage for the year 1880 was 4·99, but fell to 4·05 in 1898. In New South Wales the figures are 5·0 and 4·11 for the same years respectively.

The average number of children born to a marriage for the decennial period 1891–1900 was, in New South Wales, 4·79; Victoria, 4·39; and in New Zealand, 3·87. In England and Wales for the period 1890–99 the average was 4·09, in Scotland 4·36, and in Ireland 4·83.

New Zealand had in 1880 the highest birth-rate (40·78); in 1900 the case was reversed; but in 1901 the New Zealand rate was higher than that of Victoria.

The fall over ten years is calculated as under:—

BIRTH-RATES PER 1,000 OF POPULATION.

State or Colony.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Queensland	35·84	33·73	31·86	32·85	30·06	29·92	28·28	27·31	30·21	28·28
New South Wales ..	33·89	33·33	31·48	30·66	28·35	28·42	27·14	27·10	27·43	..
Victoria	32·54	31·23	29·16	28·56	27·33	26·59	25·72	26·71	25·82	25·77
South Australia ..	32·41	31·76	30·49	30·28	28·46	26 97	24·98	25·51	25·78	..
Western Australia ..	33·09	34·22	28·27	26·30	22·65	25·82	29·35	30·64	31·46	..
Tasmania	32·47	33·92	31·11	30·09	28·16	27·73	26·24	25·98	28·25	28·40
New Zealand	27·83	27·50	27·28	26·78	26·33	25·96	25·74	25·12	25·60	26·34

This table also shows that although New Zealand had in 1900 the lowest birth-rate in Australasia, the fall has been much less in this colony since 1892 than in the others.

A declining birth-rate is noticeable in many civilised countries, and attention has been drawn to the serious consequences that may result by statisticians and political economists. That the fertility of women in New Zealand is decreasing further facts will tend to how.

Taking the number of married women in New Zealand at what may be considered the child-bearing ages (*i.e.*, from fifteen to forty-five years, inclusive) as shown by each census since 1878, and for the same years the number of legitimate births (excluding plural) registered, the birth-rate per 1,000 married women of the above-stated ages is easily found, and is shown to be steadily declining. In 1878 the rate was 337 per 1,000, in 1896 it had fallen to 252, and in 1901 to 244, or, in other words, in 1878 one married woman of the ages specified in every three gave birth to a child, while in 1901 the rate was 1 in 4 only. The figures for each census year are given below, and are followed by a table showing the declining birth-rate, and the increase in the marriage-rate, in the United Kingdom.

BIRTH-RATES (LEGITIMATE) PER 1,000 MARRIED WOMEN AT CHILD-BEARING AGES FOR EACH CENSUS YEAR, 1878 TO 1901.

Year (Census).	Number of Married Women between 15 and 45 Years of Age.	Number of Legitimate Births (Confinements).	Birth-rate per 1,000 Married Women of from 15 to 45 Years of Age.
1878	50,995	17,196	337·2
1881	57,458	18,003	313·3
1886	62,704	18,532	295·5
1891	63,165	17,455	276·3
1896	69,807	17,596	252·1
1901	79,406	19,355	243·8

BIRTH AND MARRIAGE RATES IN THE UNITED KINGDOM, 1886, 1891, 1896, AND 1900.

Year.	Mean Population.	Births.		Marriages.	
		Number.	Rate per 1,000 of Population.	Number.	Rate per 1,000 of Population.
1886 ..	36,313,582	1,145,683	31·55	241,180	6·64
1891 ..	37,796,390	1,148,259	30·38	275,970	7·30
1896 ..	39,464,582	1,152,122	29·19	296,089	7·50
1900 ..	40,909,925	1,158,921	28·33	310,770	7·60

The above figures are taken from the "Statistical Abstract for the United Kingdom, 1886 to 1900" (forty-eighth number), published in August, 1901.

The birth-rates for ten years in Great Britain and certain countries of the European Continent are given from the report of the Registrar-General of England. The rates in England and Wales, and in Scotland, are higher than those in New Zealand, but the rate for Ireland is lower. For 1891 and following years France has the lowest rate of all quoted:—

BIRTH-RATES IN EUROPEAN COUNTRIES, 1891 TO 1899.

Countries.	Number of Births per 1,000 of Mean Population.								
	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Hungary ..	42·3	40·3	42·5	41·3	41·5	40·3	40·1	37·5	39·0
Austria ..	38·1	36·2	37·9	36·7	38·6	38·0	37·5	36·2	37·1
Italy	37·3	36·3	36·6	35·7	35·1	35·0	35·0	33·8	34·2
German Empire	37·0	35·7	36·7	35·8	36·1	36·3	36·0	36·2	35·9
Netherlands ..	33·7	32·0	33·8	32·7	32·8	32·7	32·5	31·9	32·0
Scotland ..	31·2	30·8	31·0	30·1	30·4	30·9	30·6	30·8	30·5
Norway ..	30·9	29·6	30·7	29·7	30·5	30·4	30·0	30·3	30·9
England and Wales ..	31·4	30·5	30·8	29·6	30·4	29·7	29·7	29·4	29·3
Belgium ..	29·6	28·9	29·5	29·0	28·5	29·0	29·0	28·6	28·8
Sweden ..	28·3	27·0	27·4	27·1	27·5	27·2	26·7	26·2	27·1
Switzerland ..	27·8	27·4	27·7	27·1	27·1	27·9	28·1	28·4	28·9
Ireland ..	23·1	22·5	23·0	22·9	23·2	23·6	23·5	23·2	22·9
France ..	22·6	22·3	22·7	22·3	21·7	22·5	22·3	21·8	21·9

From the year 1895 marriages have shown an increase, the rate being then 5·94 per 1,000 of population. In 1901 the rate rose to 7·83, the highest record since 1878, when it was 7·97 per 1,000 of mean population. The number of marriages solemnised in 1901 was 6,095, an increase of 235 on the number for 1900.

MARRIAGE RATES IN AUSTRALASIA PER 1,000 OF POPULATION.

	1874.	1886.	1891.	1896.	1898.	1899.	1900.
Queensland ..	8·62	8·67	7·18	6·05	6·03	6·78	6·88
New South Wales ..	7·70	7·99	7·39	6·59	6·66	6·89	7·38
Victoria	6·33	7·84	7·69	6·48	6·53	7·01	6·96
South Australia ..	8·00	6·24	7·31	6·20	6·18	6·24	6·50
Western Australia ..	6·96	7·98	8·00	8·45	9·89	9·89	10·27
Tasmania	6·83	7·26	6·63	5·88	6·29	6·37	7·71
New Zealand ..	8·81	5·99	6·04	6·85	6·91	7·28	7·67

In April, 1896, New Zealand had 83,659 children living under the age of 5 years, and in March, 1901, the number was 86,806, an increase of 3,147, although the population at all ages increased in the quinquennium by 9·86 per cent. Between 1886 and 1891 the children living under 5 years actually decreased in number by 3,624, the increase of population of all ages (8·33 per cent.) being less than between 1891 and 1896 (12·24 per cent.), or 1896 and 1901 (9·86 per cent.). The number of children under one year to the total population at all ages, according to the results of four censuses, was :—

	Children under One Year.	Total Population (all Ages).
Census, 1886	18,355	578,482
" 1891	16,443	626,658
" 1896	17,070	703,360
" 1901	18,381	772,719

Thus, in 1886, with a population of 578,482 persons, there were 18,355 children under one year, against 18,381 children of that age in 1901, with a population of 772,719 persons.

The births registered in 1885 were 19,693, against 18,546 in 1895, and 20,491 in 1901. The birth-rate fell from 34·35 per 1,000 of the population in 1885 to 26·78 in 1895, and to 26·34 in 1901.

Deducting 1,469, the number of deaths of children under one year registered in 1900, from 19,546, the number of births for that year, leaves 18,077, or within 304 of the living children under one year at the time of the last census.

TWIN BIRTHS.

There were 190 cases of twin births (380 children), and triplets were registered in three instances, in 1901. The number of children born was 20,491; the number of mothers was 20,295: thus on an average one mother in every 107 gave birth to twins, against 102 in 1900, 106 in 1899, 97 in 1898, and 101 in 1897 and 1896. In 1895 the proportion was one in 93, and in 1894 one in 103.

Illegitimacy.

The births of 937 children were illegitimate: thus 46 in every 1,000 children born were born out of wedlock, the same number as in 1900.

The following table gives the rates of illegitimacy in Australasia. The rate in New Zealand is less than in any of the Australian States except South Australia:—

Proportion of Illegitimate Births in every 100 Births.

Year.	Queensland.	New South Wales.	Victoria.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1890	4·85	5·26	5·09	2·50	..	4·05	3·30
1891	4·65	5·36	5·36	2·93	..	3·72	3·49
1892	5·05	5·71	5·59	2·93	5·89	4·75	3·32
1893	4·97	6·16	5·46	2·84	4·17	4·41	3·70
1894	4·52	6·14	5·50	3·05	4·66	5·09	3·80
1895	4·93	6·51	5·33	3·13	4·47	4·97	4·50
1896	5·22	5·71	5 63	3·45	5·61	5·91	4·48
1897	6·02	6·58	5·42	3·53	5·27	5·74	4·41
1898	6·04	6·93	5·29	3·62	4·99	5·09	4·23
1899	5·97	7·15	5·49	3·95	4·91	6·08	4·40
1900	6·40	7·01	5·91	4·24	4·82	5·43	4·63
1901	5·93	7·16	5·58	..	..	..	4·57

These figures show a rise in the proportion of illegitimate births to every 100 births for this colony, amounting to 1·27 for the period 1890–1901.

The total number of births registered were 19,299 in 1886 and 20,491 in 1901, while the illegitimate births rose from 602 to 937. The causes that led to the fall in the birth-rate certainly did not greatly affect the number of illegitimate children.

The number of spinsters in the colony between 15 and 45 increased during the ten years from 65,035 (census 1891) to 100,310 (census 1901), or at the rate of 55·9 per cent., while the illegitimate births increased from 638 to 937, or at the rate of 46·9 per cent. only.

It would therefore appear that the larger proportion of illegitimate births now obtaining cannot with any certainty be taken as indicative of increased looseness of living on the part of the people.

The following figures, taken from "The Wealth and Progress of New South Wales, 1900–1901," showing the rate of illegitimacy per 100 births in Australasia and in the United Kingdom, are based on statistics for a period of five years:—

Country.	Illegitimate Births per Cent.	Country.	Illegitimate Births per Cent.
New South Wales ..	6·88	Tasmania	5·65
Victoria	5·55	New Zealand	4·42
Queensland	5·94	England and Wales ..	4·15
South Australia ..	3·76	Ireland	2·65
Western Australia ..	5·06	Scotland	6·97

Of the total number of children born in Australasia during the five years ended 1900, 5·75 per cent. were illegitimate, as compared with 4·42 per cent. in the United Kingdom for the period 1895–99.

The figures in the next table, which give the percentages of illegitimate births in a number of foreign countries, also cover in most cases a period of five years, 1895–99.

Country.	Illegitimate Births per Cent.	Country.	Illegitimate Births per Cent.
Germany	9·21	France	8·26
Prussia	7·84	Belgium	8·51
Bavaria	14·00	Netherlands	2·71
Saxony	12·90	Sweden	10·80
Austria	14·55	Norway	7·35
Hungary	9·01	Italy	6·34

For England and Wales the proportion of illegitimate births to the total births in 1899 was 4 per cent., having gradually diminished from 7 per cent. in 1845. The minimum rate was 2·8 per cent., in Essex, and the maximum 6·6 per cent., in Herefordshire. For London the percentage was 3·6.

The average proportion of illegitimate births in Scotland in 1897 was 7·0 per cent., the rate varying from 3·5 per cent., in Dumbartonshire, to 14·1 in Wigtownshire; but in Ireland in that year the extremely low average of 2·6 per cent. obtained, the rate varying from 0·7 in Connaught to 3·6 in Ulster.

The Legitimation Act.

An important Act was passed in 1894, entitled the Legitimation Act, which makes provision for the legitimation of children born before marriage on the subsequent marriage of their parents. Under this Act any child born out of wedlock, whose parents afterwards marry, is deemed to be legitimised by such marriage on the birth being registered in the manner prescribed by the Act. For legitimation purposes Registrars must register a birth when called upon to do so by any person claiming to be the father of an illegitimate child; but such person is required to make a solemn declaration that he is the father, and that at the time of the birth there existed no legal impediment to his marriage with the mother of the child. He has also to produce the evidence of his marriage. It will thus be seen that in cases dealt with under the Act registration becomes the test of legitimacy. In the December quarter of 1894, 11 children were legitimised; in 1895 the number was 68; in 1896, 56; in 1897, 48; in 1898, 59; in 1899, 41; in 1900, 62; and in 1901, 47; making altogether 392 legitimations since the passing of the law.

"The Infant Life Protection Act, 1896."

By this statute it has been rendered unlawful for a person to take charge, for payment, of an infant to maintain or nurse for more than three days without holding license as an infants' home keeper. The house of such a person must be registered as an infants' home.

The administration of this law is a matter entirely managed by the police, and the Commissioner reports the working to be satisfactory. The licensed homes are periodically inspected by the police authorities, and the results have shown that licensees generally comply with the required conditions, the homes and infants being well looked after.

Births and Birth-rates in the Four Chief Cities.

The total number of births registered as occurring in the four chief centres and suburbs in 1901 was 5,234, as against 4,875 for the previous year.

The births in the four cities rose from 3,098 in 1900 to 3,161 in 1901, and in the suburban boroughs from 1,777 to 2,073. The birth-rates for 1901 were :—

	Birth-rates per 1,000 of Mean Population.	
Auckland City	30·00	
" and five suburban boroughs ..	..	28·25
Wellington City	26·35	
" and three suburban boroughs ..	..	26·87
Christchurch City	24·12	
" and four suburban boroughs ..	..	26·12
Dunedin City	22·04	
and eight suburban boroughs ..	..	24·26

Thus, by the inclusion of the suburbs the rate is raised at Wellington, Christchurch and Dunedin, but lowered at Auckland. It will be observed that Auckland has the highest rate, Wellington next highest, Christchurch and Dunedin following with intervals. The difference between the Auckland rate (28·25) and the Dunedin rate (24·26) is considerable. The birth-rate for the whole colony for 1901 was 26·34 per thousand. Auckland and Wellington are thus over the average, Christchurch and Dunedin below it.

Taking the births in the four central boroughs without their suburbs, and comparing the numbers for 1901 and 1900, an increase for 1901 is observed at Auckland of 9, at Wellington of 23, at Christchurch of 6, and at Dunedin of 25. The figures for the last five years are :—

	1897.	1898.	1899.	1900.	1901.
Auckland (without suburbs) ..	906	916	988	1,028	1,037
Wellington " ..	1,067	1,065	1,036	1,127	1,150
Christchurch " ..	376	390	340	417	423
Dunedin " ..	498	507	490	526	551

The birth-rates for three of the central boroughs in 1901 show a rise (one a decrease) when compared with 1900. In Auckland the rate rose from 29·31 to 30·00; in Wellington, from 25·76 to 26·35; in Christchurch, from 21·51 to 24·12; but fell in Dunedin, from 22·07 to 22·04. The rates for five years, 1897 to 1901, are as follows :—

	Births per 1,000 of Population.				
	1897.	1898.	1899.	1900.	1901.
Auckland (without suburbs) ..	28·29	26·96	25·77	29·31	30·00
Wellington " ..	27·71	25·75	24·24	25·76	26·35
Christchurch " ..	21·88	22·07	18·74	21·51	24·12
Dunedin " ..	21·54	21·61	20·82	22·07	22·04

NATURALISATION.

Aliens residing in the colony may, on taking the oath of allegiance to His Majesty, obtain letters of naturalisation entitling them to enjoy all the rights and privileges that a natural-born subject of the United Kingdom can enjoy or transmit within this colony. Two hundred and thirty-eight aliens (220 men and 18 women) were naturalised in 1901.

The number belonging to each nationality was as under :—

NUMBER OF ALIENS NATURALISED IN 1901.

Natives of—	M.	F.	Natives of—	M.	F.
German Empire	46	10	Netherlands	4	0
Norway and Sweden ..	53	3	Greece	7	0
Denmark	26	2	Switzerland	9	0
Russia, Poland, and Finland	14	1	Belgium	1	1
France and possessions ..	13	0	Portugal and possessions ..	7	0
Italy	11	0	Turkey and Syria ..	2	0
Austria-Hungary ..	8	1	Spain	1	0
China	3	0	Wallis Island	1	0
United States of America	13	0	Cook Islands	1	0

The number of natives of each country naturalised during the last twenty years is next shown,—

Natives of—		Natives of—	
Germany	1,454	France	119
Sweden and Norway ..	1,059	Netherlands	50
Denmark	775	Greece	45
China	347	Portugal	46
Italy and Sicily	180	United States of America ..	62
Switzerland	168	Belgium	27
Russia	186	Other countries	84
Austria-Hungary	195	Total	4,792

By section 2 of "The Aliens Act Amendment Act, 1882," repealed and re-enacted by section 2 of "The Aliens Act Amendment Act, 1892," it is provided that when the father, or mother being a

widow, has obtained naturalisation in the colony, every child who during infancy has become resident with them in New Zealand shall be deemed to be naturalised, and shall have the rights and privileges of a natural-born subject.

MARRIAGES.

The marriages for 1901 show an increase on the number for the previous year. The number was 6,095, or 235 more than in 1900. The marriage-rate rose from 7·67 per 1,000 persons living in 1900 to 7·83 in 1901, the rate for the latter year being the highest obtained since 1878, when it stood at 7·97 per 1,000 persons. The improvement shown during the last six years sets New Zealand in a good position relatively to the Australian States.

The rates for a series of fourteen consecutive years were :—

MARRIAGES PER 1,000 OF THE POPULATION.

Year.	Queensland.	New South Wales.	Victoria.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1888 ..	8·63	7·37	8·03	6·70	7·18	6·58	5·97
1889 ..	8·37	6·76	8·14	6·47	6·99	6·50	5·94
1890 ..	8·49	7·14	8·21	7·06	5·80	6·64	6·12
1891 ..	7·18	7·39	7·69	7·31	8·00	6·63	6·04
1892 ..	6·67	6·77	6·64	6·51	7·29	6·51	6·23
1893 ..	5·91	6·40	5·99	6·26	6·34	5·51	6·22
1894 ..	5·70	6·20	5·98	6·09	6·24	5·43	6·15
1895 ..	6·23	6·35	6·00	5·88	6·83	5·32	5·94
1896 ..	6·05	6·59	6·48	6·20	8·45	5·88	6·85
1897 ..	6·05	6·72	6·36	5·46	10·73	6·23	6·83
1898 ..	6·03	6·66	6·53	6·18	9·89	6·29	6·91
1899 ..	6·78	6·80	7·01	6·24	9·89	6·37	7 28
1900 ..	6·88	7·38	6·96	6·50	10·27	7·71	7·67
1901 ..	6·61	7·68	6·99	6·44	9·65	7·68	7·83

But the improved rate for this colony is still lower than the rate for some European countries.

MARRIAGES IN EVERY 1,000 OF THE POPULATION.

German Empire	1899 ..	8·6
Belgium	1899 ..	8·2
Hungary	1899 ..	9·0
England and Wales	1899 ..	8·3
Switzerland	1899 ..	7·8
Austria	1899 ..	8·2
Spain	1894 ..	7·8
Denmark	1899 ..	7·5
Scotland	1899 ..	7·7
France	1899 ..	7·5
Netherlands	1899 ..	7·4
Italy	1899 ..	7·4
Norway	1899 ..	7·2
Sweden	1899 ..	6·3
Ireland	1899 ..	4·9

Of the marriages solemnised in 1901, 5,549 were between bachelors and spinsters, 180 between bachelors and widows, 271 between widowers and spinsters, and 95 between widowers and widows.

Divorced men and women have been classified as bachelors or spinsters: 38 divorced men and 46 divorced women were married during the year.

Included amongst spinsters are nine married women, and amongst the bachelors two married men, who elected to go through the form of marriage with other persons under the protection of the provisions of section 204, subsection (5), of "The Criminal Code Act, 1893," which runs: "No one commits bigamy by going through a form of marriage if he or she has been continually absent from his or her wife or husband for seven years then last past, and is not proved to have known that his wife or her husband was alive at any time during those seven years."

The total number of marriages solemnized (6,095) does not include marriages where both parties are of the aboriginal native race, such persons being exempted from the necessity of complying with the provisions of the Marriage Act, although at liberty to take advantage thereof. Fourteen marriages in which both parties were Maoris were contracted in 1901 in terms of the Act: 12 by Registrars, 1 by a clergyman of the Presbyterian Church, and 1 by a Wesleyan minister.

Bachelors and Spinsters in New Zealand.

The results of three censuses in respect of the number of bachelors of 20 years and upwards, and spinsters of 15 years and upwards, in the colony show some interesting features. In 1891 there was an excess of bachelors over the spinsters amounting to 3,497 men. But by 1896 not only had the preponderance of the male element been lost, but an excess of spinsters over bachelors was reported amounting to 1,786 women, while in 1901 this excess had risen to 3,572 women.

It is noticeable how differently the numbers for the provincial districts have been affected by the process in operation. An excess of bachelors was preserved in Auckland, Taranaki, Hawke's Bay, Wellington, Marlborough, Nelson, and Westland from 1891 to 1901. In Canterbury, however, an excess of spinsters was found in 1891 of 2,516, which increased to 3,997 in 1896 and to 4,918 in 1901; while in Otago an excess of 773 spinsters in 1891 increased to 2,066 in 1896, and diminished slightly in 1901 when there were 1,899 more spinsters than bachelors. These two important districts of the Middle Island have lost large numbers of bachelors by departures to the North Island.

The following table exhibits the particulars for each provincial district:—

Provincial Districts.	Census, 1891.		Census, 1896.		Census, 1901.	
	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.	Excess of Bachelors over Spinsters.	Excess of Spinsters over Bachelors.
Total excess ..	3,497	..	..	1,786	..	3,572
Auckland ..	156	..	703	..	521	..
Taranaki ..	121	..	524	..	805	..
Hawke's Bay ..	1,337	..	1,142	..	425	..
Wellington ..	2,129	..	637	..	32	..
Marlborough ..	644	..	183	..	158	..
Nelson	1,486	..	580	..	637	..
Westland ..	900	..	501	..	666	..
Canterbury ..	..	2,516	..	3,997	..	4,918
Otago	..	773	..	2,066	..	1,899
Chatham Islands	15	..	7	..	1	..
Kermadec Islands	..	2	..	..	..	..

MARRIAGES BY MINISTERS OF VARIOUS DENOMINATIONS.

Of the marriages in the year 1901, 24·91 per cent. were solemnised by ministers of the Church of England, 24·48 per cent. by ministers of the Presbyterian Churches, 13·19 per cent. by ministers of the Wesleyan and other Methodist Churches, 10·53 per cent. by ministers of the Roman Catholic Church, 10·20 per cent. by ministers of other denominations, and 16·69 per cent. by Registrars.

The following shows the proportions of marriages by ministers of the principal denominations in the past eight years, and the percentages of these denominations to the total population :—

Denomination.	Percentage of Marriages.								Percentage of Denomination to Total Population in 1901.
	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	
Church of England	22·86	22·74	22·86	23·00	23·37	24·17	22·68	24·91	40·84
Presbyterians ..	25·30	24·32	25·01	25·44	26·02	25·30	26·38	24·48	22·87
Wesleyans and other Methodists	15·99	15·69	17·92	17·61	13·98	12·91	13·23	13·19	10·86
Roman Catholics ..	10·08	11·19	10·26	10·12	10·37	10·87	10·82	10·53	14·23
Other denominations	6·65	7·29	6·05	5·86	9·25	9·34	10·20	10·20	11·20
By Registrars ..	19·12	18·77	17·90	17·97	17·01	17·41	16·69	16·69	..
	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00

Marriage by the Registrar is found to be less frequent than it was eight years ago, the percentage falling from 19·12 in 1894 to 16·69 in 1901.

Marriage Register signed by Mark.

Of the men married in 1901, 28, or 4·59 in every 1,000, and of the women 38, or 6·23 per 1,000, signed the register by marks.

The illiteracy of the people, as measured by the proportion of married persons who affix marks instead of signatures to the marriage register, has greatly decreased of late, having fallen since 1881 from 32·04 per 1,000 among men to 4·59 per 1,000, and from 57·98 per 1,000 to 6·23 per 1,000 among women. This is shown in a very striking manner by the following table:—

Persons in every 1,000 Married who signed by Mark.

Denomination.	1881.		1891.		1901.	
	M.	F.	M.	F.	M.	F.
Church of England	16·59	27·15	8·29	10·66	1·32	3·29
Presbyterians	10·25	29·61	5·79	8·69	2·68	4·69
Wesleyans and other Methodists	32·41	41·79	8·93	10·71	3·73	3·73
Roman Catholics	117·78	133·33	31·33	18·28	6·23	7·79
Other denominations	10·36	20·72	9·26	..	1·61	3·22
By Registrars	39·22	93·51	27·42	43·08	13·77	15·73
Total marriages	32·04	57·98	13·93	16·82	4·59	6·23

The proportion of illiterates in 1901 was greatest among those married before Registrars. Previously the proportion was largest among Roman Catholics; but since 1881 it has, as shown by the table, most remarkably decreased.

Ages of Persons Married.

Of the persons married in 1901, 118 bridegrooms and 1,046 brides were under 21 years of age—one of the bridegrooms was between 16 and 17, two between 17 and 18, and eleven between 18 and 19. Of the brides, three were under 15 years of age, three were between 15 and 16, and thirty-one between 16 and 17 years of age. The proportion of men married is greatest at the ages of 25 to 30, and of women at from 21 to 25 years.

The following are the proportions of men and women married at each age-period to every 100 marriages in the years 1891 and 1901:—

Age.	1891.		1901.	
	M.	F.	M.	F.
Under 21 years	1·55	20·79	1·93	17·16
21 and under 25	26·99	43·99	24·94	39·97
25 „ 30	36·19	22·97	37·08	26·89
30 „ 40	25·94	8·72	27·12	12·73
40 „ 50	6·44	2·71	6·04	2·44
50 „ 60	2·26	0·66	1·77	0·57
60 „ 70	0·55	0·16	0·92	0·24
70 and upwards	0·08	..	0·20	..

Registrars of Marriages are prohibited by law from issuing certificates for the marriage of minors without the consent of their

parents or lawful guardians, if there be any in the colony. If a declaration be made in any case that there is no parent or lawful guardian in the colony, then a certificate may be issued after the expiration of fourteen days following the date on which the notice of intended marriage is given.

A marriage may not be solemnised except after the delivery to the minister or Registrar who officiates of a certificate issued by a Registrar authorising such marriage, and if any persons knowingly and wilfully intermarry without such certificate the marriage is null and void; and no clergyman or minister of any denomination is empowered to solemnise marriages until his name has been placed on the Registrar-General's list of officiating ministers for the year.

Marriage with a deceased wife's sister in New Zealand was legalised in the year 1880, and an Act was passed in the year 1900 which legalised marriage with the brother of a deceased husband. This Act is retrospective, including in its provisions marriages between such parties which had previously been solemnized as well as those contracted after the statute was passed, and declaring all these to be valid, and the issue born prior or subsequent to the passing of the Act to be deemed born in lawful wedlock.

The measure was reserved for the signification of her late Majesty's pleasure. The Royal assent has since been given, and the Act came into force in New Zealand by Proclamation dated the 22nd May, 1901.

The ages at which persons may contract binding marriages are the same as in England—12 years for females and 14 for males. Marriage may be contracted at earlier ages than those stated, but would be voidable at the discretion of either of the parties upon reaching the age of 12 or 14, as the case may be, and without the necessity of proceedings in Court.

Although in New Zealand the age at which girls may legally marry is as above; nevertheless, by the criminal law, to unlawfully carnally know a girl under the age of 16 years is now a punishable offence. The age of consent was raised from 15 to 16 by statute passed in 1896.

The average age of the men married in this colony in 1901 was 29·72 years, and of the women, 25·54 years. In England the mean age of those whose ages were stated was (in the year 1899) 28·34 years for men, and 26·21 years for women. Thus the average age at marriage in the colony is higher for men, but lower for women, than in England.

The proportion of bridegrooms under 21 is much greater in England than in New Zealand; but the proportion of brides under 21 is greater in the colony.

In England, in 1891-95, of every 1,000 bridegrooms whose ages were stated, 56 were under 21 years of age, and of every 1,000 brides 183 were under 21 years of age. In New Zealand, in 1901, the proportions were 19 bridegrooms and 172 brides of similar ages in every 1,000 married :—

Year.	Bridegrooms under 21 in every 100.	Brides under 21 in every 100.	Year.	Bridegrooms under 21 in every 100	Brides under 21 in every 100.
1888	1·85	24·30	1898	1·57	18·13
1890	1·89	22·75	1899	2·10	18·81
1892	1·62	20·14	1900	1·67	17·34
1894	1·44	19·53	1901	1·94	17·16
1896	1·96	19·51			

Number of Ministers.

The number of names on the list of officiating ministers under the Marriage Act is (May, 1902) 1,001, and the denominations to which they belong are shown hereunder :—

Denomination.	No.	Denomination.	No.
Church of England	327	Auckland Central Mission	1
Presbyterian Church of New Zealand	209	Wellington Central Mission	1
Roman Catholic Church	160	Independent Wesleyan	1
Methodist Church of Australasia	164	The Forward Movement	1
Congregational Independents	20	Salvation Army	9
Baptists	28	Catholic Apostolic Church	4
Primitive Methodist Connexion	36	Seventh-day Adventists	5
Lutheran Church	9	Unitarian Church	1
Hebrew Congregations	6	Pilgrims of Peace	1
Church of Christ	14	Scots Church	1
Free Methodist Churches	3	Total	1,001

Deaths.

The deaths in 1901 numbered 7,634, being equivalent to a rate of 9·81 in every 1,000 persons living, as against 9·43 in 1900. The lowest rate experienced since the year 1887, when the deaths were 10·29 per 1,000 of the population, was that for 1896 (9·10).

Comparative Death-rate for the Period 1891 to 1901.

Country.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
New Zealand	10·35	10·06	10·23	10·19	9·91	9·10	9·14	9·84	10·24	9·43	9·81
Queensland	12·77	12·66	13·34	12·08	11·38	12·10	11·33	12·66	12·07	11·73	11·88
New South Wales	14·24	12·20	13·24	12·36	11·79	12·30	10·88	12·48	11 82	11 16	11·68
Victoria	16·24	13·63	14·11	13·14	13·25	13·35	12·90	15·94	14·28	12·75	13·22
South Australia*	13·30	11·41	13·44	11·64	11·25	11·48	11 24	13·06	12·14	10·64	11·11
Western Australia	17·33	16·67	15·31	14·40	17·78	16·45	16·97	16·05	13·76	12·92	13·36
Tasmania	15·00	13·53	13·47	12·42	11·38	11·63	11·53	13·51	12·25	11·05	10·45
England and Wales	20·2	19·0	19·2	16·6	18·7	17·1	17·7	17·6	18·3	..	..
Scotland	20·7	18·6	19·5	17·2	19·7	16 9	18·8	18 4	18·6	..	..
Ireland	18·4	19·4	17·9	18·2	18·4	16·6	18·4	18·1	17·6	..	..
Denmark	20·0	19·4	18·9	17·5	16·9	15·7	16 6	15·6	17·5	..	..
Norway	17·5	17·8	16·3	16·9	15·7	15·2	15·2	15·2	16·8	..	..
Sweden	16·8	17·9	16·8	16·4	15·2	15·6	15·4	15·1	17·6	..	..
Austria	28·2	28·8	27·2	27·8	27·7	26·4	25·6	24·9	25 4	..	..
Hungary	33·1	35·0	31·1	30·4	29·6	28·8	28·4	27·9	27·0	..	..
Switzerland	20·6	19·2	20·4	20·5	19·6	18·3	18·2	18·9	17·6	..	..
German Empire	23·4	24·1	24·6	22·3	22·1	20·8	21·3	20·6	21.5	..	..
Netherlands	20·7	21·0	19·2	18·5	18·6	17·2	16·9	17·0	17·1	..	..
France	22·6	22·6	22·8	21·4	22·3	20·2	19·6	21·2	21·1	..	..
Italy	26·2	26·3	25·3	25·1	25·2	24 2	22·1	23·1	22·1	..	..

* Excluding the Northern Territory.

As will be seen from the preceding table, covering a series of years, the death-rate in New Zealand contrasts very favourably with that in the Australian States and in European countries.

In this statement New Zealand is conspicuous as showing the lowest death-rate. The rates for the principal Australian States are a little higher, but, generally speaking, far below those for the United Kingdom or the European Continental States mentioned in the table.

Deaths and Death-rates of the Four Principal Cities and their Suburbs.

In the earlier annual reports on the vital statistics of the four chief towns the central boroughs alone were dealt with, particulars respecting the suburbs not having been obtained. But this omission was held to be a grave defect, as the suburban death-rate may differ much from the death-rate at the centre. Steps were therefore taken early in 1895 to collect statistics of the suburban boroughs as well as of the four chief cities. As regards Auckland and Christchurch, the whole of the area usually recognised as suburban has not yet been brought under municipal government, and the statistics given below do not deal with such portions as still remain in road districts. The omission, however, is not very important, for there are in either case quite enough suburbs included within borough boundaries to give a fair idea of the death-rate of greater Auckland and greater Christchurch. As further boroughs are formed the vital statistics will be made to include them.

The total number of deaths registered for the four centres in 1901 was 2,275—viz., 1,465 in the cities, and 810 in the suburbs. In 1900 the number was 2,104: 1,379 in the cities, and 725 in the suburbs.

By including the suburbs the death-rate for last year is lowered at each of the four centres. The rates for the year are:—

	Death-rates per 1,000 of mean Population.	
Auckland City	13·10	
" and five suburban boroughs ..		11·50
Wellington City	10·66	
" and three suburban boroughs ..		10·29
Christchurch City	13·11	
" and four suburban boroughs ..		12·77
Dunedin City	12·64	
" and eight suburban boroughs ..		11·62

Mortality at Four Centres, including Suburbs.

If the suburbs are included, the death-rate is found to be highest in Christchurch and lowest in Wellington; Dunedin and Auckland taking second and third places respectively. The death-rate for the colony was 9·81 per 1,000 of mean population. The four centres might be expected to show a higher average than this.

If the number of deaths of infants under one year be excluded,

the mortality among the rest of the population is found to have been for 1900 and 1901 in the following ratio to the 1,000 living:—

	1900.	1901.
Auckland (including suburbs)	8·26	8·65
Wellington "	7·05	7·60
Christchurch "	8·20	9·89
Dunedin "	9·58	9·70

The degree of infantile mortality is perhaps best shown in the proportion of deaths of children under one year of age to every 100 births. For 1900 and 1901 the proportions at the chief centres were,—

	1900.	1901.
Auckland (including suburbs)	12·78	9·88
Wellington "	7·32	10·03
Christchurch "	10·83	11·02
Dunedin "	7·95	7·89

Thus the proportions for Auckland and Dunedin are less than that found at either of the other two chief cities. Again, the percentage of deaths of children under 5 years to the total number of deaths is: in Auckland, 30·15; in Christchurch, 27·04; in Wellington, 32·28; and in Dunedin, only 20·23. The total of deaths under 5 is 618, or 27·16 per cent. of all deaths, as against 574 and 27·28 per cent. for 1900. The deaths of persons of 65 and upwards numbered 586 last year; in 1900 they were 505.

Mortality at Four Centres, excluding Suburbs.

Excluding suburbs, and dealing with the deaths at all ages in the four cities or central boroughs only, the rates for 1901 are found to be lower in Auckland, but higher in Wellington, Christchurch, and Dunedin, than in the previous year. The total number of deaths, and the death-rates, for four years are given:—

Cities (excluding Suburbs).	Deaths, 1898.		Deaths, 1899.		Deaths, 1900.		Deaths, 1901.	
	No.	Per 1,000 of Population.	No.	Per 1,000 of Population.	No.	Per 1,000 of Population.	No.	Per 1,000 of Population.
Auckland ..	483	14·22	499	13·02	480	13·69	453	13·10
Wellington ..	516	12·47	477	11·16	401	9·17	465	10·66
Christchurch ..	192	10·87	230	12·68	206	10·62	231	13·11
Dunedin ..	298	12·73	317	13·47	292	12·25	316	12·64

By omitting the deaths of infants under one year, and calculating the rate on the population of one year of age and upwards, the death rates for each of the four principal boroughs are found to be higher in 1901 than in the previous year.

	Deaths per 1,000 of Population, excluding Infants (under One Year of Age).			
	1898.	1899.	1900.	1901.
Auckland (excluding suburbs) ..	9·86	9·53	9·72	9·93
Wellington " ..	9·18	8·39	7·65	8·12
Christchurch " ..	8·85	9·16	8·22	10·69
Dunedin " ..	10·87	11·59	10·64	10·88

Subjoined is a table showing the rates of infant mortality in the four cities for each of the past five years, together with the mean rates for the period.

	Deaths of Children under One Year to every 100 Births.					
	1897.	1898.	1899.	1900.	1901.	Mean of Five Years.
Auckland (excluding suburbs) ..	12·80	17·14	14·47	14·49	11·57	14·09
Wellington " ..	10·59	13·71	12·26	6·65	10·43	10·73
Christchurch " ..	12·50	10·00	19·71	11·99	11·35	13·11
Dunedin " ..	6·22	9·66	10·20	8·37	9·07	8·70

Causes of Death at Four Centres, including Suburbs.

While treating of the death-rates at the chief cities and surroundings, it is desirable to refer to the causes of mortality, which is done in the remarks that follow. The deaths for the whole colony, classified according to their cause, are treated of at length a little further on.

Specific Febrile and Zymotic Diseases (at Four Chief Centres).

The total mortality from these diseases at the four centres, with their suburbs, was lower in 1901 than in 1900, 1899, and 1898. The total deaths in this class for the four towns were 304 for 1898, 360 for 1899, 214 for 1900, and only 209 for 1901.

	Deaths from Febrile and Zymotic Diseases.				
	Auckland and Suburbs.	Wellington and Suburbs.	Christchurch and Suburbs.	Dunedin and Suburbs.	Total.
1901 ..	70 ..	46 ..	54 ..	39 ..	209
1900 ..	93 ..	37 ..	43 ..	41 ..	214
1899 ..	110 ..	62 ..	104 ..	84 ..	360
1898 ..	117 ..	99 ..	44 ..	44 ..	304

Of the above, influenza caused most deaths in 1901 at the four centres taken together, the total number being 74. Diarrhœal diseases came next, with 57 deaths, diphtheria 13, typhoid fever 24, whooping-cough 4, measles and scarlet fever 2 each, and other zymotic complaints 33.

Comparison of the deaths for each city shows,—

Zymotic, &c., Diseases.	Auckland and Suburbs.		Wellington and Suburbs.		Christchurch and Suburbs.		Dunedin and Suburbs.	
	1901.	1900.	1901.	1900.	1901.	1900.	1901.	1900.
Diarrhœal diseases ..	31	57	10	11	10	11	6	14
Influenza	14	10	14	5	25	9	21	14
Typhoid fever ..	11	8	5	8	6	3	2	2
Measles	..	..	..	1	..	..	2	..
Scarlet fever	1	..	..	..	1	1	..	..
Bubonic Plague ..	..	1	..	..	..	..	..	..
Diphtheria	2	5	7	6	2	7	2	3
Whooping cough ..	1	..	1	..	1	6	1	2
Chicken pox	..	..	..	..	1	..	..	..
Other zymotic diseases	10	12	9	6	8	6	5	6

Parasitic Diseases (at Four Chief Centres).

Hydatids were fatal at Wellington (3 deaths), Christchurch (1 death), and Dunedin (2 deaths).

Dietetic Diseases (at Four Chief Centres).

These numbered 28, of which 15 were attributed to intemperance, 12 being due to want of breast-milk, or malnutrition, and 1 to exposure.

Constitutional Diseases (at Four Chief Centres).

From these, deaths at the four towns numbered 471 in 1901. The first in importance of these diseases, and of all causes of death, is tubercle. The figures for 1900 and 1901 show 266 and 263 deaths for each year respectively.

Phthisis and other Tubercular Diseases (at Four Chief Centres).

	1901.		1900.	
	Phthisis.	Other Tubercular Diseases.	Phthisis.	Other Tubercular Diseases.
Auckland and suburbs..	41	9	47	15
Wellington " ..	55	25	57	12
Christchurch " ..	43	11	47	7
Dunedin " ..	68	11	53	28
	207	56	204	62

The mortality from tubercular diseases for 1901 was 11·56 per cent. of the total deaths at the four boroughs from all causes.

Deaths from cancer at the chief towns rose in number from 145 in 1900 to 154 in 1901. The latter number is 6·77 per cent. of deaths for the year from all causes.

Diabetes showed 24 deaths in 1901, against 15 in 1900.

Developmental Diseases (at Four Chief Centres).

There were 227 deaths in this class; 93 of which were from premature birth, 115 from old age, and 19 from other causes.

Local Diseases (at Four Chief Centres).

Deaths in this class were 107 more than in 1900, the figures being 1,125 against 1,018. Diseases of the respiratory system showed 308 deaths for 1901, or more than one-fourth of the whole mortality in the class, against 182 in the former year. Bronchitis, pneumonia, congestion of lungs, pleurisy, and allied diseases form this group. The large increase in deaths from these complaints accounts for more than the total increase in the class as a whole.

Under the head of "diseases of the digestive system" there were 192 deaths at the four centres, including 59 from enteritis; peritonitis, 19; gastritis, 25; cirrhosis of liver, 9; jaundice, 7; and dentition, 10.

Diseases of the urinary system caused 73 deaths. The remaining deaths were: 244 from nervous diseases, 1 disease of organs of special sense, 260 of organs of the circulatory system, 10 of the lymphatic, 24 of the reproductive system, 7 of the organs of locomotion, and 6 of the integuments.

Violent Deaths (at Four Chief Centres).

There were 119 violent deaths at the cities and suburbs, 94 of which were classed as accidental. Four of these latter were caused by fractures, and 9 by falls. In 10 cases death resulted from the deceased being run over by cab, cart, wagon, or train. Thirteen deaths were from burns or scalds, 24 by drowning, 6 by suffocation, 1 by poisoning, 5 by misadventure with morphia or chloroform, besides 8 from accident at birth, and 14 others.

Two deaths were returned as homicidal, murder, manslaughter, &c.

Of 23 suicides, 5 were by shooting, 6 by cutting throat, 2 by poison, 4 by hanging, 2 by drowning, 1 by placing himself on the railway-line, 1 by strangling, 1 by throwing himself from a bridge, and 1 from a window.

VITAL STATISTICS OF AUSTRALASIAN CAPITALS, 1900.

The vital statistics of the chief cities, *with their suburbs*, of Australasia, show that the death-rate in Wellington (N.Z.) for 1900 was lower than that of any other of the principal towns for the same year.

Capital Cities (including Suburbs).	Estimated Mean Population.	Births.		Deaths.		Excess of Births over Deaths.
		Total Number.	Rate per 1,000 of Population.	Total Number.	Rate per 1,000 of Population.	
Melbourne ..	490,100	12,067	24·62	7,021	14·33	5,046
Sydney	486,067	12,127	24 95	5,502	11·32	6,625
Adelaide ..	159,307	4,093	25 69	2,033	12·76	2,060
Brisbane * ..	120,585	3,433	28·47	1,314	10·90	2,119
Perth	35,405	1,240	35·02	521	14·72	719
Hobart ..	34,519	830	24·04	495	14·34	335
Wellington ..	49,067	1,243	25·33	437	8·91	806

* Ten-mile radius.

DEATHS IN THE WHOLE COLONY AT VARIOUS AGE-PERIODS.

The average age at death of persons of either sex, in each of the seven years, 1895–1901, was as follows :—

	Males.	Females.		Males.	Females.
1895 ..	36·21 years	30·17 years.	1899 ..	37·73 years	33·54 years.
1896 ..	36·80 „	32·41 „	1900 ..	40·31 „	36·14 „
1897 ..	38·80 „	34·77 „	1901 ..	41·64 „	37·68 „
1898 ..	39·29 „	35·69 „			

From a mortality table, constructed by the Assistant Actuary of the Government Life Insurance Department for his own purposes, it appears that out of every 1,000 males born 662 reach the age of 50 years, 614 the age of 55, 550 the age of 60, and 471 the age of 65. For females, 688 out of every 1,000 born live to 50 years, 648 to 55, 598 to 60, and 530 to 65. These results must not be regarded as put forward by authority of the department.

Subjoined is a classified statement of the deaths of infants under one year during 1901, with the ratio of the deaths in each class to the 1,000 births during the year :—

Year.	Sex.	Under 1 Month.	1 and under 3 Months.	3 and under 6 Months.	6 and under 12 Months.	Total under 12 Months
	NUMBER OF DEATHS.					
1901 ..	Male	354	142	167	160	823
	Female	256	130	125	129	640
	DEATHS TO THE 1,000 BIRTHS.					
1901 ..	Male	33·80	13·56	15·95	15·28	78·59
	Female	25·55	12·97	12·48	12·87	63·87

Seventy-nine out of every thousand of male children born, and sixty-four of every thousand females, are found to have died before attaining the age of one year. The mortality is thus one in thirteen of male children and one in sixteen of females, even in New Zealand, where conditions are far more favourable to infant life than in Australia, at least as far as relates to the cities.

It will also be seen from the figures that the chances of living during the first year of age are far greater for female than for male infants. Thus, during the year 1901 there were—

100 deaths of males to 76 deaths of females under 1 month of age;
100 " 96 " from 1 to 3 months of age;
100 " 78 " from 3 to 6 months of age;
100 " 84 " from 6 to 12 months of age;
100 " 81 " under 12 months of age.

The rates of infantile mortality—that is, the proportion the deaths of children under one year of age bear to the births—are higher in the Australian States than in New Zealand.

Causes of Death (the whole Colony).

The deaths registered in the colony during the last five years, when distributed among the several classes according to their assigned causes, give the rates shown hereunder:—

Causes of Death.	Rate per 10,000 living.				
	1897.	1898.	1899.	1900.	1901.
Zymotic diseases	8·44	10·99	12·41	9·23	7·83
Parasitic diseases	0·18	0·37	0·38	0·30	0·24
Dietetic diseases	0·84	0·87	1·03	0·93	0·88
Constitutional diseases	17·99	18·81	18·75	17·76	18·83
Developmental diseases	7·46	8·80	9·64	9·15	10·05
Local diseases	45·30	46·86	48·69	45·63	48·95
Violence	7·55	7·43	7·23	7·53	7·48
Ill-defined and not-specified causes ..	3·63	4·26	4·27	3·76	3·87
All causes	91·39	98·39	102·40	94·29	98·13

The next table shows that fifty in every one hundred deaths in 1901 were from local diseases, of which diseases of the respiratory system formed 13 per cent., diseases of the circulatory system 12 per cent., and of the nervous system 11 per cent., while diseases of the digestive system contributed 8 per cent. Constitutional diseases, including, with others, phthisis and cancer, comprised 19 per cent. of the total mortality. Eight per cent. of deaths were from zymotic causes, including 5·13 per cent. from miasmatic diseases, and 1·82 per cent. from diarrhœal. Deaths from developmental diseases come next in proportion, being 10·24 per cent. of the whole, followed by violent deaths, with 7·63 per cent.

Causes of Death.	Number of Deaths.			Proportion to Total Deaths.			Proportion per 10,000 living, 1901.	Proportion per 10,000 living, 1900.
	Male.	Female.	Total.	Male.	Female.	Total.		
Class I. Specific febrile or zymotic diseases,—				Per Cent.	Per Cent.	Per Cent.		
Order 1. Miasmatic diseases	216	176	392	4·89	5·47	5·13	5·04	5·53
" 2. Diarrhœal diseases	68	71	139	1·54	2·21	1·82	1·79	2·61
" 3. Malarial diseases	...	...	...	...	..	...	...	...
" 4. Zoogenous diseases	...	...	...	...	...	...	...	...
" 5. Venereal diseases	13	5	18	0·29	0·16	0·24	0·23	0·31
" 6. Septic diseases	22	38	60	0·50	1·18	0·79	0·77	0·78
Total Class I.	319	290	609	7·22	9·02	7·98	7·83	9·23
Class II. Parasitic diseases	10	9	19	0·23	0·28	0·25	0·24	0·30
Class III. Dietetic diseases	55	13	68	1·24	0·40	0·89	0·88	0·93
Class IV. Constitutional diseases	770	695	1,465	17·43	21·61	19·19	18·83	17·76
Class V. Developmental diseases	435	347	782	9·85	10·79	10·24	10·05	9·15
Class VI. Local diseases,—								
Order 1. Diseases of nervous system	490	330	820	11·09	10·26	10·74	10·54	9·95
" 2. Diseases of organs of special sense	2	1	3	0·05	0·03	0·04	0·04	0·13
" 3. Diseases of circulatory system	570	363	933	12·90	11·29	12·22	12·00	11·11
" 4. Diseases of respiratory system	565	416	981	12·79	12·93	12·85	12·61	10·50
" 5. Diseases of digestive system	334	280	614	7·56	8·71	8·05	7·89	8·47
" 6. Diseases of lymphatic system	15	17	32	0·34	0·53	0·42	0·41	0·32
" 7. Diseases of urinary system	192	92	284	4·35	2·86	3·72	3·65	3·76
" 8. Diseases of reproductive system,—								
(*a.*) Of organs of generation	...	27	27	...	0·84	0·35	0·35	0·33
(*b.*) Of parturition	...	70	70	...	2·18	0·92	0·69	0·67
" 9. Diseases of locomotive system	17	10	27	0·38	0·31	0·35	0·35	0·21
" 10. Diseases of integumentary system	7	10	17	0·15	0·31	0·22	0·22	0·18
Total Class VI.	2,192	1,616	3,808	49·61	50·25	49·88	48·95	45·63
Class VII. Violence,—								
Order 1. Accident or negligence	392	102	494	8·87	3·17	6·47	6·35	6·50
" 2. Homicide	3	5	8	0·07	0·16	0·11	0·10	0·14
" 3. Suicide	66	13	79	1·50	0·40	1·01	1·02	0·89
" 4. Execution	1	...	1	0·02	...	0·01	0·01	...
Total Class VII.	462	120	582	10·46	3·73	7·63	7·48	7·53
Class VIII. Ill-defined and not-specified causes	175	126	301	3·96	3·92	3·94	3·57	3·76
Grand totals	4,418	3,216	7,634	100·00	100·00	100·00	98·13	94·29

The next table shows, for either sex, the number of deaths from each cause registered during the year 1901 :—

CAUSES OF DEATH.

Class.	Causes of Death. — Orders and Diseases.	Males.	Females.	Total.
I.—Specific Febrile or Zymotic Diseases.	Order 1.—*Miasmatic.*			
	Small-pox	...	...	...
	Chicken-pox	1	...	1
	Measles	4	2	6
	Epidemic rose-rash, rubeola	...	1	1
	Scarlet fever, scarlatina	7	10	17
	Typhus	...	...	...
	Dengue	...	...	...
	Relapsing fever	...	...	...
	Influenza	119	100	219
	Whooping-cough	2	7	9
	Mumps	...	...	...
	Diphtheria	25	19	44
	Cerebro-spinal fever	...	...	...
	Simple and ill-defined fever	...	...	...
	Enteric fever, typhoid	58	37	95
	Other miasmatic diseases	...	...	...
	Total Order 1	216	176	392
	Order 2.—*Diarrhœal.*			
	Simple cholera	6	5	11
	Diarrhœa	57	64	121
	Dysentery	5	2	7
	Total Order 2	68	71	139
	Order 3.—*Malarial.*			
	Remittent fever	...	...	...
	Ague	...	...	...
	Beriberi	...	...	...
	Total Order 3	...	...	...
	Order 4.—*Zoogenous.*			
	Hydrophobia	...	...	...
	Glanders	...	...	...
	Splenic fever	...	...	...
	Cow-pox and other effects of vaccination	...	...	...
	Total Order 4	...	...	...
	Order 5.—*Venereal.*			
	Syphilis	11	5	16
	Gonorrhœa, stricture of urethra, ulcer of groin	2	...	2
	Total Order 5	13	5	18
	Order 6.—*Septic.*			
	Phagedæna	1	...	1
	Erysipelas	1	5	6
	Pyæmia, septicæmia	20	13	33
	Puerperal fever, pyæmia, septicæmia	...	20	20
	Total Order 6	22	38	60
	Total Class I.	319	290	609
II.—Parasitic Diseases.	Thrush	2	...	2
	Other diseases from vegetable parasites	...	...	...
	Hydatid disease	8	8	16
	Worms	...	1	1
	Other diseases from animal parasites	...	...	...
	Total Class II.	10	9	19
III.—Dietetic Diseases.	Starvation	5	...	5
	Want of breast-milk	6	3	9
	Scurvy	...	...	...
	Intemperance—			
	Chronic alcoholism	25	6	31
	Delirium tremens	11	1	12
	Other dietetic diseases	8	3	11
	Total Class III.	55	13	68
IV.—Constitutional Diseases.	Rheumatic fever	19	13	32
	Rheumatism	8	6	14
	Gout	1	...	1
	Rickets	2	3	5
	Cancer	265	250	515
	Tabes mesenterica, tubercular peritonitis	24	28	52
	Tubercular meningitis, acute hydrocephalus	33	28	61
	Phthisis	304	202	506
	Other forms of tuberculosis, scrofula	40	26	66
	Purpura, hæmorrhagic diathesis	5	...	5
	Anæmia, chlorosis, leucocythæmia	27	13	40
	Diabetes mellitus	37	31	68
	Other constitutional diseases	5	5	10
	Total Class IV.	770	695	1,465
V.—Developmental Diseases.	Premature birth	153	111	264
	Atelectasis	9	4	13
	Cyanosis	7	8	15
	Spina bifida	4	6	10
	Imperforate anus	1	1	2
	Cleft palate, hare-lip	1	3	4
	Other congenital defects	7	12	19
	Old age	253	202	455
	Total Class V.	435	347	782
VI.—Local Diseases	Order 1.—*Diseases of Nervous System.*			
	Inflammation of the brain or its membranes	55	49	104
	Cerebro-spinal meningitis	9	13	22
	Apoplexy	150	96	252
	Softening of brain	14	10	24
	Hemiplegia, brain paralysis	24	17	41

CAUSES OF DEATH—*continued.*

Class.	Causes of Death. Orders and Diseases.	Males.	Females.	Total.
VI.—LOCAL DISEASES—*continued.*	ORDER 1.—*Diseases of Nervous System*—contd.			
	Paralysis (undescribed)...	53	35	88
	Paralysis agitans ...	...	...	...
	Insanity, general paralysis of insane	30	10	40
	Chorea	1	1	2
	Epilepsy	22	13	35
	Convulsions	62	49	111
	Laryngismus stridulus ...	...	...	...
	Idiopathic tetanus ...	3	...	3
	Paraplegia, diseases of spinal cord	14	8	22
	Locomotor ataxia ...	7	1	8
	Other diseases of nervous system	40	28	68
	Total Order 1 ...	490	330	820
	ORDER 2.—*Diseases of Organs of Special Sense.*			
	Otitis, otorrhœa... ...	2	...	2
	Epistaxis, and diseases of nose	...	1	1
	Ophthalmia, and diseases of eye	...	...	...
	Total Order 2 ...	2	1	3
	ORDER 3.—*Diseases of Circulatory System.*			
	Endocarditis, valvular disease	386	251	637
	Pericarditis	5	1	6
	Hypertrophy of heart ...	2	1	3
	Fatty degeneration of heart	39	22	61
	Angina pectoris	12	13	25
	Syncope	83	46	129
	Aneurism	17	1	18
	Senile gangrene... ...	9	5	14
	Embolism, thrombosis ...	12	23	35
	Phlebitis	...	...	...
	Varicose veins, piles ...	...	...	...
	Other diseases of circulatory system	5	...	5
	Total Order 3 ...	570	363	933
	ORDER 4.—*Diseases of Respiratory System.*			
	Laryngitis	20	8	28
	Croup	13	15	28
	Other diseases of larynx and trachea	...	1	1
	Asthma, emphysema ...	17	11	28
	Bronchitis	188	155	343
	Pneumonia	249	189	438
	Pleurisy	32	16	48
	Other diseases of respiratory system	46	21	67
	Total Order 4 ...	565	416	981

Class.	Causes of Death. Orders and Diseases.	Males.	Females.	Total.
VI.—LOCAL DISEASES—*continued.*	ORDER 5.—*Diseases of Digestive System.*			
	Stomatitis, cancrum oris	4	2	6
	Dentition	14	12	26
	Sore throat, quinsy ...	7	2	9
	Dyspepsia	5	5	10
	Hæmatemesis	1	1	2
	Melæna	...	3	3
	Diseases of stomach, gastritis	54	42	96
	Enteritis	87	76	163
	Ulceration, perforation, of intestine	5	7	12
	Ileus, obstruction of intestine	21	24	45
	Stricture or strangulation of intestine	1	3	4
	Intussusception of intestine	9	6	15
	Hernia	6	6	12
	Fistula	1	...	1
	Peritonitis	28	31	59
	Ascites	1	2	3
	Gall-stones	3	9	12
	Cirrhosis of liver ...	32	15	47
	Other diseases of liver, hepatitis, jaundice ..	31	18	49
	Other diseases of digestive system	24	16	40
	Total Order 5 ...	334	280	614
	ORDER 6.—*Diseases of Lymphatic System and Ductless Glands.*			
	Diseases of lymphatic system	5	2	7
	Diseases of spleen ...	1	..	1
	Bronchocele	4	11	15
	Addison's disease ...	5	4	9
	Total Order 6 ...	15	17	32
	ORDER 7.—*Diseases of Urinary System.*			
	Acute nephritis	26	12	38
	Bright's disease ...	90	54	144
	Uræmia	8	11	19
	Suppression of urine ...	1	...	1
	Calculus	2	2	4
	Hæmaturia	2	...	2
	Diseases of bladder and prostate	46	3	49
	Other diseases of urinary system (kidney diseases undescribed)	17	10	27
	Total Order 7 ...	192	92	284
	ORDER 8.—*Diseases of Reproductive System.*			
	(*a.*) Diseases of organs of generation,—			
	Ovarian disease ...	...	5	5

CAUSES OF DEATH—*continued.*

Class.	Causes of Death. Orders and Diseases.	Males.	Females.	Total.
VI.—LOCAL DISEASES—*continued.*	ORDER 8.—*Diseases of Reproductive System*—ctd.			
	(*a.*) Diseases of organs of generation—*ctd.*			
	Diseases of uterus and vagina	...	19	19
	Disorders of menstruation	...	...	...
	Pelvic abscess	...	3	3
	Perineal abscess ...	...	...	...
	Diseases of testes, penis, scrotum, &c.	...	...	...
	(*b.*) Diseases of parturition,—			
	Abortion, miscarriage ...	...	10	10
	Puerperal mania ...	...	1	1
	Puerperal metritis ...	...	1	1
	Puerperal convulsions ...	...	6	6
	Placenta prævia (flooding)	...	12	12
	Phlegmasia dolens ...	...	1	1
	Other accidents of childbirth	...	39	39
	Total Order 8 ...	...	97	97
	ORDER 9.—*Diseases of Organs of Locomotion.*			
	Caries, necrosis	6	4	10
	Arthritis, ostitis ...	4	1	5
	Other diseases of organs of locomotion	7	5	12
	Total Order 9 ...	17	10	27
	ORDER 10.—*Diseases of Integumentary System.*			
	Carbuncle	2	1	3
	Phlegmon, cellulitis ...	...	3	3
	Lupus	...	...	..
	Ulcer, bed-sore	...	1	1
	Eczema	2	5	7
	Pemphigus	2	...	2
	Other diseases of integumentary system ...	1	...	1
	Total Order 10 ...	7	10	17
	Total Class VI. ...	2,192	1,616	3,808
VII.—VIOLENCE.	ORDER 1.—*Accident or Negligence.*			
	Fractures, contusions ...	183	15	198
	Gunshot wounds ...	16	1	17
	Cut, stab	6	3	9
	Burn, scald	23	31	54
	Sunstroke	1	...	1
	Poison	3	6	9
	Drowning	121	21	142
	Suffocation	15	9	24
	Otherwise	24	16	40
	Total Order 1 ...	392	102	494
	ORDER 2.—*Homicide.*			
	Murder, manslaughter ...	3	5	8
	Wounds in battle ...	...	...	...
	Total Order 2 ...	3	5	8
	ORDER 3.—*Suicide.*			
	Gunshot wounds ...	19	...	19
	Cut, stab	17	...	17
	Poison	6	6	12
	Drowning	4	3	7
	Hanging	16	2	18
	Otherwise	4	2	6
	Total Order 3 ...	66	13	79
	ORDER 4.—*Execution.*			
	Hanging	1	...	1
	Total Class VII. ...	462	120	582
VIII.—ILL-DEFINED AND NOT-SPECIFIED CAUSES.	Dropsy	3	2	5
	Marasmus, &c.	159	118	277
	Mortification, gangrene ...	...	...	...
	Tumour	2	1	3
	Abscess	1	4	5
	Hæmorrhage	1	...	1
	Sudden (cause unascertained)	9	1	10
	Other ill-defined and not-specified causes ...	...	...	...
	Total Class VIII. ...	175	126	301
	General totals ...	4,418	3,216	7,634

MORTALITY FROM ZYMOTIC AND FEBRILE DISEASES.

The deaths in 1901 from specific febrile or zymotic diseases amounted to 609, a proportion of 7·83 in every 10,000 persons living, and a decrease of 96 on the number of deaths in 1900, when the proportion was 9·23. A reduced mortality from measles, diphtheria, whooping-cough, and diarrhœal diseases were the main causes of the decreased death-rate in this class.

The following are the diseases in this class that have caused the greatest mortality during the past ten years:—

Diseases.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Measles	..	525	14	..	1	1	56	137	9	6
Scarlet fever and scarlatina	4	1	5	..	4	2	2	..	10	17
Diphtheria ..	195	128	92	76	74	49	45	58	63	44
Whooping-cough ..	115	55	190	150	24	2	6	123	90	9
Influenza ..	144	106	238	125	89	120	219	135	181	219
Diarrhœal diseases	329	193	207	232	334	257	275	298	199	139
Enteric or typhoid fever	134	97	115	94	124	106	120	93	68	95
Puerperal fever ..	29	24	38	32	10	18	19	15	24	20

Measles, which was epidemic in 1893, caused only 16 deaths in the four succeeding years; but in 1898 the mortality rose to 56 and in 1899 to 137 deaths, falling again to 9 deaths in 1900, and to 6 deaths in 1901. From scarlatina there were 17 deaths last year. The mortality from diphtheria rose from 45 deaths in 1898 to 58 in 1899, and 63 in 1900, and fell to 44 deaths in 1901.

Whooping-cough in 1894 destroyed 190 lives, and 150 in 1895, but was in 1896, 1897, and 1898 much less fatal. In 1899 the mortality sprang up again to a total of 123 deaths, against 90 in 1900, and 9 in 1901. In 1891 there were 242 deaths from this cause.

Influenza, the deaths from which were 89 in 1896, 120 in 1897, and 219 in 1898, caused 135 deaths in 1899, 181 in 1900, and 219 in 1901.

From diarrhœal complaints the deaths in 1901 were 139, against 199 in 1900, or 159 less than in 1899; while in 1896 the mortality reached the height of 334 deaths, and in 1889 was even higher (355), with a much smaller population than in 1901. Influenza is the most fatal of the order "zymotic and febrile" (219 deaths), diarrhœal diseases coming second for the year 1901, enteric fever third, and diphtheria fourth.

Enteric or typhoid fever was more fatal in 1901 than in 1900, the figures being 95 deaths, against 68 for the former year. The highest mortality during the decennium was in 1892, when the deaths numbered 134 for the colony.

Bubonic Plague Prevention.

The year 1900 saw the outbreak of the disease known as the bubonic plague in Sydney and other parts of Australia. In that year there was one death from plague in New Zealand, which occurred at Auckland, but none happened in the year 1901. The Public Health Department is taking every possible precaution.

VACCINATION.

From small-pox there were no deaths in 1901. The vaccinations registered for the last ten years are as under :—

Year.	Total Vaccinations registered.	Number of Births registered.	Proportion of Successful Vaccinations of	
			Children under 1 Year of Age to Total Births. Per Cent.	Children under 14 Years of Age to Total Births. Per Cent.
1901 ..	3,768	20,491	9·68	18·39
1900 ..	4,525	19,546	16·12	23·15
1899 ..	5,133	18,835	17·94	27·25
1898 ..	10,349	18,955	29·05	54·60
1897 ..	12,440	18,733	32·89	66·41
1896 ..	11,917	18,612	30·78	64·03
1895 ..	8,523	18,546	31·72	44·34
1894 ..	9,322	18,528	32·42	50·31
1893 ..	7,412	18,187	28·09	40·75
1892 ..	8,216	17,876	32·41	45·96

The number of successful vaccinations registered in 1901 was only 3,768, against 4,525 in 1900, 5,133 in 1899 and 10,349 in 1898. The fall is consequent on the alteration of the law relative to vaccination in England, and subsequently in this colony.

One child in every ten born in 1901 is shown to have been successfully vaccinated in that year. The procedure under the new law as regards vaccination is similar to that previously in force. The Registrar issues a notice when a birth is registered, with forms for certificate as to the result of vaccination attached. Vaccination is still compulsory, if exemption is not secured in four months from date of birth. But everything is now subject to the provisions of the "exemption clause," which is the main feature, and governs the rest. Any parent or custodian who has conscientious objections—believing that vaccination would be injurious to the child's health—can apply for a certificate of exemption to a Magistrate or Registrar of Births.

Two thousand five hundred and fifteen exemption certificates were issued from the 13th October, 1900, when the Act came into force, to the end of the year 1901.

When no exemption certificate is obtained, the law now allows *twelve months* instead of *six* from date of birth in which to vaccinate to the parent, and a similar period from date of taking charge of child in case of a custodian. There are penalties for not vaccinating as before. One conviction for neglecting to vaccinate a child removes liability until the child is four years of age.

The main features of the new English law include a system of domiciliary visitation by public vaccinators, in substitution for that

requiring children to be taken to vaccination stations, and exemption of parents and others from any penalty for not vaccinating children on production to the proper officer of a magistrate's certificate to the effect that he is satisfied as to the conscientious objections raised. Vaccination with glycerinated calf lymph, or other lymph issued by Local Government Boards is offered by the Government. The Act continues in force until the beginning of the year 1904.

Parasitic Diseases.

There were 19 deaths from parasitic diseases, the proportion per 10,000 living being 0·24. Deaths from hydatids numbered 16 in 1901.

Dietetic Diseases.

Under the class "Dietetic Diseases" are included 43 deaths from intemperance. But these cannot be said to represent the full extent of the mortality really caused by the abuse of alcoholic liquors. Many deaths of intemperate persons are attributed to disease of the liver, kidneys, &c., in the medical certificates.

Constitutional Diseases: Phthisis, Cancer, etc.

The deaths from constitutional diseases in 1901 numbered 1,465, or 18·83 per 10,000 of population, and 19 out of every 100 deaths from all causes. This class of disease is more fatal than any other except that defined as "Local diseases," on account of the great numbers of deaths from cancer and phthisis, with other tubercular complaints, which are classed as "Constitutional."

From phthisis there are more deaths than from any other cause. The number of deaths was 596 in 1901. The deaths in 1901 were in the proportion of 7·66 in every 10,000 persons living, against 7·56 in the previous year.

Figures for ten years are quoted, showing that the total number of deaths from this disease for 1898 was the highest recorded during the decennium, though the rate had been slightly higher in some of the previous years.

Year.	Deaths from Phthisis.	Rate per 10,000.
1892	524	8·16
1893	545	8·24
1894	576	8·48
1895	553	7·99
1896	523	7·40
1897	596	8·26
1898	597	8·11
1899	593	7·91
1900	577	7·56
1901	596	7·66

In Australasia the rate is materially increased by the deaths of persons who have come out either already suffering from phthisis or predisposed thereto. There is no reason for believing that this circumstance has more effect on the death-rate in Australia than in New Zealand; so that the lower rate referred to in previous issues of this work as obtaining in this colony may be taken as proof of the superiority of its climate for withstanding consumptive tendencies.

The death-rate of England and Wales from phthisis, though declining, is far higher than that of New Zealand. In 1899 it stood at 13·36 per 10,000.

Phthisis is now known to be and is treated as an infectious preventible disease caused by the bacillus tuberculosis, which is communicable in many ways. Certain constitutions are far more predisposed than others to receive this bacillus, especially under conditions of life unfavourable to robust health, when a nidus is formed for the development of the bacillus.

From other forms of tuberculosis the deaths in 1901 were 179, or 2·30 per 10,000 of population. Thus a large addition has to be made to the deaths from phthisis to appreciate the full mischief done by tubercular disease.

Deaths from all Tubercular Diseases.

The mortality from all forms of tubercular disease, taken together, has been at the average rate of about 10½ persons per 10,000 living for the last ten years. This rate is far lower than that which obtained in England during the year 1897, when the proportion was 19·30 per 10,000 living.

A table is supplied showing the results for each of ten years in New Zealand. Besides the death-rate from tubercular diseases, it also shows the percentage of deaths by tubercle to those from all causes, which was from 10 to 11½ per cent. for the decennial period 1892–1901.

DECENNIAL TABLE, 1892–1901, SHOWING THE DEATH RATE FROM TUBERCLE PER 10,000 LIVING AND PERCENTAGE OF TOTAL DEATHS.

Year.	Mean Population.	Number of Deaths from Tubercular Diseases.	Rate per 10,000.	Percentage of Total Deaths from all Causes.
1892	642,245	700	10·90	10·84
1893	661,349	729	11·02	10·77
1894	679,196	752	11·07	10·87
1895	692,417	761	10·99	11·09
1896	706,846	680	9·62	10·57
1897	721,609	763	10·57	11·57
1898	736,260	769	10·44	10·62
1899	749,984	795	10·60	10·35
1900	763,594	752	9·85	10·44
1901	777,968	775	9·96	10·15

DECENNIAL TABLE, 1892–1901. — Deaths from various Tubercular Diseases registered in New Zealand, specifying the Number under and over Five Years of Age.

Persons.

Year.	Tabes Mesenterica, Tubercular Peritonitis.		Tubercular Meningitis, Acute Hydrocephalus		Phthisis.		Other Forms of Tuberculosis, Scrofula.		Total Deaths from Tuberculosis.		Total All Ages.
	Under 5 Years.	Over 5 Years.	Under 5 Years.	Over 5 Years.	Under 5 Years.	Over 5 Years	Under 5 Years.	Over 5 Years.	Under 5 Years.	Over 5 Years.	
1892 ..	47	18	33	32	8	516	16	30	104	596	700
1893 ..	35	14	33	39	8	537	21	42	97	632	729
1894 ..	36	13	33	30	7	569	16	48	92	660	752
1895 ..	47	15	25	37	5	548	28	56	105	656	761
1896 ..	36	11	30	28	5	518	19	33	90	590	680
1897 ..	35	9	33	32	7	589	13	45	88	675	763
1898 ..	37	12	37	38	10	587	11	37	95	674	769
1899 ..	43	19	32	40	10	583	12	56	97	698	795
1900 ..	20	20	24	55	13	564	9	47	66	686	752
1901 ..	30	22	30	31	10	586	14	52	84	691	775

It will be seen that the term "tubercular diseases" includes "phthisis," "tabes mesenterica," "tubercular peritonitis," "tubercular meningitis," "acute hydrocephalus," with other forms of tuberculosis (scrofula, &c.). Of these the mortality from phthisis forms by far the greatest part of the whole. Thus, in 1901, there were 596 deaths from phthisis out of a total of 775 deaths from all tubercular complaints. Of 596 deaths by phthisis, only 10 were of persons under five years of age.

Examination of the next table, giving the full series of ages of persons who died from tubercular disease during the year 1901, shows that of 52 deaths from tabes mesenterica, with tubercular peritonitis, 30 were of children under 5 years. Also, that of 61 deaths from tubercular meningitis, with acute hydrocephalus, 30 were of persons under 5 years, and 21 from 5 to 20 years. Under "other forms of tuberculosis" (excepting phthisis) the greater numbers of deaths are at the earlier ages.

The mortality from phthisis is heaviest at 20–30 years, being 196 deaths out of 596 of all ages; but large numbers are found in the columns as far as that for the advanced term of 65 to 70 years, at which the deaths for 1901 were 18.

TABLE showing the Number of Deaths from Tubercular Diseases registered in New Zealand during the Year 1901, arranged in Groups of Ages.

Persons.

—	Under 1 Year.	Under 5 Years.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and upwards.	Total, 5 Years and over.	All Ages.
Tabes Mesenterica, Tubercular Peritonitis	26	30	2	3	7	4	2	1	..	2	...	1	...	...	...	...	...	...	22	52
Tubercular Meningitis, Acute Hydrocephalus	9	30	12	5	4	3	3	3	...	...	...	...	...	...	1	...	...	...	31	61
Phthisis	4	10	5	8	59	110	86	68	63	37	36	31	31	22	18	4	6	2	586	596
Other forms of Tuberculosis, Scrofula	9	14	1	2	7	17	11	3	2	...	2	3	2	1	1	...	...	...	52	66
Totals ...	48	84	20	18	77	134	102	75	65	39	38	35	33	23	20	4	6	2	691	775

To show the mortality from tuberculosis in various parts of the colony, a table giving the deaths in the various provincial districts is added, which, however, only shows that the mortality is distributed very much according to population. The deaths in the North Island are, however, found to be 29 fewer than those for the South Island, or 373 deaths and 402 deaths for those divisions respectively:—

TABLE showing the Number of Deaths from Tubercular Disease registered in each Provincial District of New Zealand during the Year 1901.

Provincial District.	Tabes Mesenterica, Tubercular Peritonitis.	Tubercular Meningitis, Acute Hydrocephalus.	Phthisis.	Other Forms of Tuberculosis, Scrofula	Total Deaths from Tuberculosis.
Auckland ..	12	11	125	10	158
Taranaki ..	1	5	21	1	28
Hawke's Bay	5	3	26	7	41
Wellington ..	10	12	109	15	146
Marlborough	1	..	4	..	5
Nelson ..	3	3	27	1	34
Westland ..	..	..	11	..	11
Canterbury ..	6	9	113	14	142
Otago ..	14	18	160	18	210
Totals ..	52	61	596	66	775

Eight deaths from "lupus" have not been included in the comparative table for ten years. All these were deaths of adult persons.

The report of the Royal Commission, presented to the Imperial Parliament and dated 4th April, 1898, states that inquiry was made as to what administrative procedures are available and desirable for controlling the danger to man through using as food the meat and

milk of tuberculous animals. Nothing was adduced to raise any doubt as to the accuracy of the opinion expressed at a previous Commission in 1895, that tubercular disease in bovine and other animals is identical with that in the human subject, and communicable from one to the other, nor doubt that any person who takes tuberculous matter into the body as food incurs risk of acquiring tuberculous disease. But the conclusion arrived at was that there has been a tendency to exaggerate the extent of the risk arising from meat. Dealing with the question of milk-supply, the Commissioners say :—

Whatever degree of danger may be incurred by the consumption of the flesh of tuberculous animals, there can be little doubt that the corresponding danger in respect of milk-supply is a far greater one. On this point the opinion of the previous Royal Commission on tuberculosis was emphatic: "No doubt the largest part of the tuberculosis which man obtains through his food is by means of milk containing tuberculous matter." In Great Britain and Ireland meat, as a rule, is cooked before it is eaten to an extent which goes largely to destroy infective matter. Milk, on the other hand, is largely consumed in a raw state, especially by children, and there exists a general distaste for cooked milk as a beverage. Amongst most continental nations the practice is to some extent the opposite of this, and large quantities of meat, especially in the various forms of sausages, are consumed absolutely raw, while the greater proportion of the milk is cooked before consumption. It has been proved over and over again that milk from tuberculous udders, and even milk which has been purposely contaminated with tuberculous matter, can be rendered perfectly harmless by being boiled for one minute—a method of sterilisation which we agree with the former Commission in preferring for general application to any of the other plans which have been employed. We have already explained how unsatisfactory is the system of meat inspection in this country; but as regards milk, in relation to tuberculosis, inspection is still more so; indeed, it may be said not to exist. Even local authorities, who exert themselves to prevent the sale of tuberculous meat, are without sufficient powers to prevent the sale within their districts of milk drawn from diseased cows.

Legislative action has been recommended to safeguard the life and health of the people from tubercle; and the complete isolation of consumptive patients, with the disinfecting of their sputa, and of everything that has been in contact with them, is suggested from time to time as a necessary measure.

Cancer.

The deaths from cancer during the year 1901 were 515. There were more deaths of males than of females, the numbers being, males 265, females, 250. The rate of mortality per 10,000 living was 6·62. The apparent increase in deaths from this disease is shown further on and compared with that of England. But the increase is not believed by all authorities to be a fact to the extent represented, but partly the result of more careful certification of the causes of death, and of improved diagnosis in cases of what is termed inaccessible cancer.

It is certain, however, that out of a total of 7,634 deaths from all causes in New Zealand during 1901, 515, or 6·75 per cent., were caused by cancer.

The death-rate from cancer is not so great as that from tubercular diseases, but is nevertheless a most alarming matter, not only on account of the number of deaths, but because of its progressive increase.

A decennial table shows that the deaths per 10,000 persons living rose from 4·78 in 1892 to 6·62 in 1901; and that whereas 4·75 out of every 100 deaths were attributable to cancer ten years ago, the proportion had grown to 6·75 last year.

TABLE showing for each of the Ten Years, 1892 to 1901, the Number of Persons registered as having Died from Cancer, the Proportion of Deaths from Cancer per 10,000 Living, and the Percentage of all Deaths attributed to Cancer.

Year.	Estimated Mean Population.	Deaths from Cancer.	Total Deaths all Causes.	Deaths from Cancer per 10,000.	Percentage of Total Deaths due to Cancer.
1892 ..	642,245	307	6,459	4·78	4·75
1893 ..	661,349	332	6,767	5·02	4·91
1894 ..	679,196	408	6,918	6·01	5·90
1895 ..	692,417	383	6,863	5·53	5·58
1896 ..	706,846	389	6,432	5·50	6·05
1897 ..	721,609	395	6,595	5·47	5·99
1898 ..	736,260	471	7,244	6·40	6·50
1899 ..	749,984	468	7,680	6·24	6·09
1900 ..	763,594	430	7,200	5·63	5·97
1901 ..	777,968	515	7,634	6·62	6·75

To exhibit how cancer affects the different parts of the human body in respect of each sex, the experience of three years (1899, 1900, and 1901) is shown in a succeeding table. Of any single organ affected, the stomach is the one most liable to be the seat of cancer among males, although with this sex the disease is apparently to about the same extent located in the mouth, lips, tongue, and throat, taking these parts all together. Next to the stomach, the liver is with males the part which is most often attacked, to judge by mortality records, and next in order come the intestines and rectum. Afterwards, but at a considerable distance, follow the kidneys, bladder, and urethra.

Amongst the females, the organs of generation, ovaries, uterus, and vagina, as a group, show by far most cases of mortality from cancer; but, as with the males, the stomach is, of any single organ, the one most affected, the liver coming next, then the breast, and then the intestines and rectum. Females do not contract cancer in the mouth (judging by the returns of deaths), tongue, lips, and throat, to nearly the same extent as prevails among males. Whatever may be the cause, the figures are remarkable, being only 5 out of every 100 deaths from cancer among females, against 28 out of every 100 of males dying from the same cause, or, expressed in numbers, 29 deaths of females occurred against 193 of males, from cancer in the mouth, &c., in a three years' experience of mortality.

DEATHS FROM CANCER, 1899, 1900, AND 1901.

TABLE showing the Number of Deaths of Males and Females from Cancer during the Years 1899, 1900, and 1901, classified according to the Part of the Body affected.

Part Affected.	1899.		1900.		1901.	
	Number of Deaths.	Proportion of Specified.	Number of Deaths.	Proportion of Specified.	Number of Deaths.	Proportion of Specified.
Males.						
		Per Cent.		Per Cent.		Per Cent.
Mouth, lip, tongue, throat, neck, &c. ..	65	27·43	68	31·78	60	24·69
Stomach	87	36·71	80	37·38	97	39·92
Intestines, rectum ..	20	8·44	26	12·15	32	13·17
Liver	40	16·88	25	11·68	37	15·23
Kidneys, bladder, urethra, &c. ..	17	7·17	9	4·21	13	5·35
Leg, foot, &c. ..	6	2·53	4	1·87	..	..
Lung	2	0·84	2	0·93	4	1·64
	237	100·00	214	100·00	243	100·00
Not specified ..	34	..	32	..	22	..
Totals ..	271	..	246	..	265	..
Females.						
Mouth, tongue, throat, &c. ..	17	9·71	6	3·73	6	2·77
Breast	20	11·43	17	10·56	38	17·51
Stomach	40	22·86	28	17·39	61	28·11
Intestines, rectum ..	14	8·00	21	13·04	19	8·76
Kidneys, bladder ..	4	2·29	5	3·11	2	0·92
Ovary, uterus, vagina	50	28·57	54	33·54	55	25·35
Liver	25	14·29	25	15·53	29	13·36
Gall-bladder, spleen, pancreas ..	3	1·71	2	1·24	2	0·92
Lung, spine, thigh, shoulder ..	2	1·14	3	1·86	5	2·30
	175	100·00	161	100·00	217	100·00
Not specified ..	22	..	23	..	33	..
Totals ..	197	..	184	..	250	..

Considering the numbers of persons dying at the different age-periods, the following table of ten years' results shows the age of 30 years to be the time of life at which deaths from cancer begin to be numerous (it is really 35 for males and 30 for females). The maximum of deaths is reached at the period 60 to 65 for males, and 55 to 60 for females. These remarks are given without reference to the numbers of persons living at the various ages.

Deaths from cancer, it will be observed, are very rare among children under 5 years, and not frequent in those above that age.

Deaths from Cancer.—Decennial Return.

Table showing the Number of Persons (Males and Females) at Different Ages registered as having Died from Cancer in New Zealand during the Ten Years, 1892 to 1901.

Year.	Under 1 Year.				Total under 1 Year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	Total under 5 Years.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and upwards.	Total 5 Years and over	All Ages.
	Under 1 Month.	1 to 3 Months.	3 to 6 Months.	6 to 12 Months.																								
1892... ...	...	...	...	...	...	...	...	2	...	2	2	1	2	3	3	7	15	19	27	52	53	45	40	21	11	4	305	307
1893... ...	...	...	...	...	...	...	...	2	1	3	1	3	...	3	1	6	9	22	32	61	54	57	36	25	13	6	329	332
1894... ...	...	...	...	...	...	...	...	1	...	1	1	...	3	1	5	11	15	27	41	64	73	71	38	26	24	7	407	408
1895... ...	...	...	...	...	...	...	...	...	...	...	2	...	..	3	1	6	11	25	47	61	64	63	38	37	19	6	383	383
1896... ...	...	...	...	...	...	...	...	...	2	2	2	1	1	2	5	6	14	21	36	59	74	67	49	29	14	7	387	389
1897... ...	...	1	...	...	1	...	1	...	1	3	...	2	1	1	...	7	10	22	41	42	71	74	49	35	29	8	392	395
1898... ...	...	...	...	...	...	...	...	2	...	2	1	2	2	5	5	8	17	36	47	47	77	79	69	35	30	9	469	471
1899... ...	...	...	...	...	...	...	...	1	...	1	3	3	...	1	4	6	15	21	42	48	82	64	87	45	27	19	467	468
1900... ...	...	1	...	...	1	...	...	1	...	2	...	...	6	2	2	6	7	16	40	35	75	78	59	51	31	20	428	430
1901... ...	...	...	1	...	1	...	...	...	...	1	2	...	4	5	5	8	20	31	53	60	65	80	74	63	33	11	514	515

The numbers of deaths of persons from cancer in each provincial district are given in another table, according to age groups, but the result merely shows the disease to be one found everywhere throughout the colony. At least there is no sufficient evidence of climatic conditions affecting the mortality to a great extent in any particular part of the country.

Table showing the Number of Deaths from Cancer at Various Ages Registered in each Provincial District of the Colony of New Zealand during the Year 1901.

Provincial Districts.	Ages.														Total.
	Under 5.	5 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and upwards.	
Auckland	1	...	...	...	1	5	4	18	15	12	8	12	9	5	2	92
Taranaki	...	...	...	...	1	2	1	3	2	2	5	3	4	1	...	24
Hawke's Bay	...	...	1	1	...	1	1	...	1	2	2	4	1	1	1	16
Wellington...	...	...	...	1	3	4	8	8	7	10	17	12	7	4	2	83
Marlborough	...	...	...	...	...	...	...	1	...	1	...	...	2	3	...	7
Nelson	...	2	...	...	1	1	1	1	2	6	3	7	5	5	...	34
Westland	...	...	...	...	...	...	1	3	3	1	5	6	5	2	...	26
Canterbury	...	1	...	2	...	4	7	5	13	10	23	10	11	8	4	98
Otago	...	3	4	1	2	3	8	14	17	21	17	20	19	4	2	135
Totals	1	6	5	5	8	20	31	53	60	65	80	74	63	33	11	515

The increase since 1881 is well exhibited in respect of each sex, and in regard to the higher ages, which are the periods at which the most cancer deaths occur, by a proportional statement:—

PROPORTIONS OF DEATHS FROM CANCER PER 10,000 MALES AND FEMALES LIVING AT THREE AGE-PERIODS.

Year.	40 to 50. Males.	40 to 50. Females.	50 to 60. Males.	50 to 60. Females.	60 to 70. Males.	60 to 70. Females.
1881 ..	5·58	9·80	11·10	22·57	22·86	43·78
1898 ..	9·07	16·59	21·64	26·09	55·21	47·44

The death-rates for cancer in respect of each sex are given for each of seven years, selected to show the position as from 1886 to 1901:—

DEATHS FROM CANCER IN EVERY 10,000 PERSONS OF EACH SEX LIVING IN NEW ZEALAND.

Year.	Males.	Females.	Year.	Males.	Females.
1886	3·69	3·67	1899	6·85	5·56
1890	4·72	4·79	1900	6·12	5·09
1894	6·65	5·27	1901	6·48	6·77
1898	6·77	5·98			

Up till 1901 the mortality was higher among the males than among the females, which is the reverse of English experience, where the rate was 6·72 per 10,000 of males and 9·77 of females, for the year 1899. In the United Kingdom, however, the rate of increase is so much higher among males than with females that the Registrar General calculates equilibrium will be reached in about the year 1932, and thereafter the rate among males would exceed the rate among females. The English rate for 1899 is the highest recorded there for each of the two sexes.

The increase in the numbers for the sexes together for England and New Zealand is represented in the proportions below:—

DEATHS FROM CANCER IN EVERY 10,000 PERSONS LIVING.

Year.	New Zealand.	England.
1881	2·69	5·20
1886	3·68	5·90
1891	4·68	6·92
1896	5·50	7·64
1899	6·24	8·29

The actual number of deaths of persons of either sex and all ages registered in New Zealand during the last eleven years was:—

	Males.	Females.	Totals.
1891	154	141	295
1892	173	134	307
1893	188	144	332
1894	240	168	408
1895	208	175	383
1896	205	184	389
1897	210	185	395
1898	263	208	471
1899	271	197	468
1900	246	184	430
1901	265	250	515
Totals ..	2,423	1,970	4,393

Mortality from Developmental Diseases.

The total of deaths from developmental diseases was 782, or 10·05 per 10,000 persons living. The mortality from premature birth comprised 264 deaths, and that from atelectasis, cyanosis, and other congenital defects 63 deaths. The proportion of deaths from premature birth varies from 11 to 14 out of every 1,000 births, and that from congenital defects from 2 to 3 per 1,000 births. Particulars for six years exhibit the annual rates :—

Number and Proportions per 1,000 Births.

Year.	Deaths from Premature Birth. No.	Deaths from Premature Birth. Proportion per 1,000.	Deaths from Congenital Defects. No.	Deaths from Congenital Defects. Proportion per 1,000.
1896	230	12·36	46	2·47
1897	211	11·26	52	2·78
1898	251	13·24	54	2·85
1899	261	13 86	47	2·50
1900	276	14·12	55	2 81
1901	264	12·88	63	3·07

Stating the result in another way, there was one death from premature birth to every 78 births in 1901, and one death from congenital defect to every 325 births. In England the proportion of deaths from premature birth to every 1,000 births was as high as 19·97 in the year 1899.

Old Age.

Deaths from old age in 1901 numbered 455, against 368 in 1900.

Mortality from Local Diseases.

Deaths by diseases of the nervous system were 820, or 10·74 out of every 100 deaths from all causes, and 10·54 out of every 10,000 persons living. Of the 820 deaths, 252 were credited to apoplexy, 111 to convulsions, and 104 to inflammation of the brain and its membranes. Paralysis, including hemiplegia and paralysis of the insane, caused 169 deaths, and locomotor ataxia 8 deaths. Paraplegia, with diseases of the spinal cord, caused 22. Deaths from nervous diseases (excluding convulsions of children) numbered 709, or 9·11 per 10,000 persons living.

Diseases of the circulatory system resulted in 933 deaths, being 12·22 out of every 100 from all causes, and 12·00 per 10,000 persons living. Of the total number in this order, endocarditis and valvular disease of the heart contributed 637 deaths. From angina pectoris there were 25 deaths, from syncope 129, from aneurism, 18; and from other forms of heart disease (hypertrophy, fatty degeneration, and pericarditis) 70.

Diseases of the respiratory system show 981 deaths, of which 781 were attributable to bronchitis and pneumonia. Taken together, these two complaints were the cause of more deaths than was phthisis, and adding 48 from pleurisy, 28 from croup, 28 from laryngitis, and 96 from other respiratory diseases, the mortality in the order is found to be 12·85 per cent. of the total deaths, and 12·61 per 10,000 of the population.

Deaths from diseases of the digestive system also formed a large proportion of the whole (8·05 per cent.), the number being 614. Enteritis was most fatal, showing 163 deaths, gastritis and liver diseases coming next with 96 deaths each.

Of 284 deaths from diseases of the urinary system in 1901, the deaths from Bright's disease of the kidneys (albuminuria) numbered 144.

Violent Deaths.

Deaths by violence form a large item in the total mortality. In 1901 the proportion per 10,000 of persons living was 7·48, the total number of deaths having been 582.

Of 462 males who died violent deaths, 66 were suicides. The deaths of females by violence were far fewer than those of males, amounting to 120, and out of these only 13 committed suicide. A table given previously states the full list of deaths from external or violent causes for the year 1901.

Accidental deaths numbered 494, males 392 and females 102. Of the total male deaths, 183 resulted from fractures or contusions, and 121 from drowning. Of the female deaths, 21 were due to drowning.

Hospitals, Lunatic Asylums, Benevolent Asylums, and Charitable Institutions.

Hospitals.

Prior to the abolition of provinces the hospitals of the colony were supported mainly out of provincial revenues. After that event the expenditure for hospitals was for the most part charged against the revenue of counties and municipal corporations, until October, 1885, when "The Hospitals and Charitable Institutions Act, 1885," came into force.

The portion of the colony included within the three principal islands—the North, Middle, and Stewart Islands—is by the above Act divided into thirty hospital districts, each consisting of one or more counties with the interior boroughs, to be presided over by elective Boards, designated "Hospital and Charitable Aid Boards."

The revenues of these Boards accrue from the following sources:—

(1.) Rents and profits of land and endowments vested in the Board, or set apart for the benefit of particular institutions;
(2.) Voluntary contributions;
(3.) Grants from contributory local authorities; and
(4.) Subsidies from the Consolidated Fund (these being at the rate of 10s. for every £1 of bequests, but in no case exceeding £500 in respect of any one bequest; £1 4s. for every £1 of voluntary contributions; and £1 for every £1 received from any local authority).

The contributory local authorities (being the County and Borough Councils, and Boards of road and town districts where the Counties

Act is not in force) are empowered by the Act to raise by special rates the amounts assessed by the Hospital District Boards as their proportionate contributions to the Hospital and Charitable Aid Fund.

The District Boards undertake the general management and control of those hospitals that are not incorporated in terms of the Act, and are required to contribute to the support of the incorporated hospitals. To be incorporated a hospital must have as many as 100 subscribers, contributing not less than £100 annually by amounts of not less than 5s., and must have been declared by the Governor in Council, after receipt by him of a duly signed petition, to be a body politic and corporate, under the government of trustees.

There are 43 hospitals in the colony, of which 22 are incorporated institutions, while 21 are directly managed and controlled by District Boards. In 1901 these hospitals afforded accommodation for 1,139 male and 648 female patients, a total of 1,787. The number of cubic feet of space included within the walls of all the sleeping-wards was 2,529,602, which gave an average of 1,416 cubic feet to each bed. 8,595 males and 4,209 females were admitted as patients during the year 1901, and 764 male and 327 female patients were inmates at the end of the year. The total number of indoor patients during the year was 13,809—viz., 9,301 males and 4,508 females.

Outdoor relief was also given to a very large number of persons; but, as in some of the hospitals no records are kept of the outdoor patients, it is impossible to state the number of distinct persons who received such relief.

The total revenues of the various hospitals as at five different annual periods were:—

—	1894-95.	1897-98.	1898-99.	1899-1900.	1900-1901.
	£	£	£	£	£
Voluntary contributions and bequests	7,915	11,521	11,991	9,188	7,330
Payments by patients	10,228	12,728	13,066	16,503	15,998
From Government	36,373	38,687	41,052	44,815	47,074
From Hospital Boards and local authorities	27,758	31,524	33,864	35,006	36,812
Rents and other sources ..	5,522	5,429	5,523	5,097	6,908
Totals	87,796	99,889	105,496	110,609	114,122

Benevolent Asylums and Charitable Institutions.

The various benevolent asylums and charitable institutions are placed on a similar footing to the hospitals. Most of the Boards of hospital districts are also Charitable-aid Boards; but, for the purpose of distributing charitable aid only, some of the hospital districts have been united into larger districts, so that, although there are thirty Boards for hospital purposes, there are only twenty-three for charitable-aid purposes.

Returns were received from nineteen benevolent asylums (not including orphanages), established for the support of indigent persons. The number of inmates in these institutions at the end of 1901 was 1,167, of whom 698 were males and 469 females. Outdoor relief was given by three of these institutions to 1,861 persons (including 1,096 children).

Auckland Sailors' Home.

There is a Sailors' Home at Auckland for the use of seafaring men resident in or visiting the town. The late Edmund Costley having left a large sum for charitable purposes, it was resolved to employ the bequest in building and endowing an institution where sailors might be received without distinction of race or religious belief, and board, lodging, and refreshments provided for them, together with such instruction and amusements as might tend to promote their social comfort and general welfare.

The Home, built in 1887, has room for 35 inmates, who are charged 15s. a week for board and lodging. It is managed by a council of eight members elected by the subscribers to the institution. The late Primate of New Zealand, who first originated the scheme, has been Life President.

Orphan Asylums.

There were in 1901 four orphan asylums in the colony, one maintained by a District Hospital Board, one by the Church of England authorities, and two by clergy of the Roman Catholic Church; three of them receiving, at the charge of the State, orphan, destitute, and other children committed to them by a Stipendiary Magistrate.

Exclusive of the children so committed, 12 male and 25 female orphans were received during the year 1901, and 49 male and 84 female orphans remained as inmates at the end of the year.

Orphanages receiving committed children are, for that purpose, constituted "industrial schools."

Lunatic Asylums.

There are seven public lunatic asylums in the colony, maintained wholly or in part out of the public revenue. There is also one private asylum, licensed by the Governor for the reception of lunatics.

The amount of sleeping-accommodation provided in each of the public asylums is shown in tabular form, giving separately the number and cubic contents of the sleeping-rooms intended for one person only, and of the dormitories occupied by several inmates conjointly, together with the number of patients actually in the asylums on the 31st December, 1901:—

—	Sleeping-rooms for One Person only.			Dormitories for more than One Person.		
	Number.	Aggregate Number of Cubic Feet.	Inmates (Patients) on 31st December, 1901.	Number.	Aggregate Number of Cubic Feet.	Inmates (Patients) on 31st December 1901.
Auckland ..	133	119,280	133	25	252,672	381
Wellington ..	77	72,509	77	16	100,173	173
Porirua ..	68	63,217	68	14	307,512	439
Nelson ..	38	32,228	38	14	65,112	101
Hokitika ..	31	23,223	31	8	69,302	81
Christchurch	80	69,651	80	34	227,010	466
Seacliff ..	176	137,734	176	46	283,582	468
Totals ..	603	517,842	603	157	1,305,363	2,109

At Ashburn Hall, Waikari, there are 66 rooms, each for one person only, with an aggregate cubic content of 64,913 ft. The number of patients on the 31st December, 1901, was 41.

At the end of 1901, 1,634 male and 1,098 female patients (including 20 out on trial) were under the care of the asylum officers of the colony. Of these, 1,536 males and 1,001 females were regarded as incurable, 11 males and 9 females were out on trial, and 87 males and 88 females were supposed to be curable. 188 male and 117 female patients were discharged during the year.

The following shows the proportion of insane—or, rather, of inmates of lunatic asylums and those out on trial—to the population (exclusive in each case of Maoris) at the end of the years stated :—

1884,	1 insane person	to every	393	of population.
1886,	"	"	370	"
1888,	"	"	365	"
1890,	"	"	348	"
1892,	"	"	339	"
1894,	"	"	316	"
1896,	"	"	308	"
1898,	"	"	300	"
1899,	"	"	296	"
1900,	"	"	288	"
1901,	"	"	286	"

It must not be overlooked that the proportions are increased by the admission into the asylums of inebriates, idiots, and others, who should not properly be there.

Information as to lunacy, extracted from the results of the census, will be found on pp. 265 and 266.

Deaf, Dumb, and Blind.

Particulars relating to the deaf, dumb, and blind, as ascertained at last census, are referred to on pp. 262 to 265 *ante*.

Y.B. Some Islanders, Mangaia.

SECTION XIX.—AGRICULTURE.

UNTIL 1895 the agricultural statistics were collected and compiled by the Registrar-General, under authority of "The Census Act, 1877," annually in the month of February, except in census years, when the collection was made with the enumeration of the people. Under this Act statistics of the acreage in grass and in all kinds of cultivation were taken; and, at the same time, the estimated yields of all the principal crops were obtained from the farmers themselves.

By the Agricultural and Pastoral Statistics Act, passed in 1895, the duty of collecting the returns devolved upon the Department of Agriculture. The plan now adopted under the Act of 1895 is similar to that used in the United Kingdom, the account of land laid down in crop being made up much earlier than formerly, while estimates of produce are made after the results of threshing are known.

Statistics of the land in cultivation were accordingly collected in October, 1901, and an interim return of the compiled results was published in detail in the *New Zealand Gazette* of the 19th December, 1901, while the corrected acreages under each description of crop were made public on the 6th March following. A summary of the particulars then given is shown in the accompanying tables, with the finally corrected statements of yield of the principal crops; but, in comparing these figures with the results obtained in former years, it must be remembered that, under the new Act, statistics of the acreage and crops of land held and cultivated by Maoris are included; whereas previously information about the farming carried on by Maoris was obtained only when a census of the Native race was taken.

Full remarks on the progress of agriculture in New Zealand, in respect of all its features in detail, are supplied by Mr. Murphy, of Christchurch, in the special article devoted to the subject, which appears as the first of Section II., in Part III.

ACREAGE AND ACTUAL YIELD IN PRINCIPAL CORN-CROPS, 1902.

Provincial Districts.	WHEAT.			OATS.			BARLEY.			MAIZE.			RYE.		
	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.	Acres	Yield per Acre, in Bushels.	Total Bushels.	Acres.	Yield per Acre, in Bushels.	Total Bushels.
Auckland	1,834	22·24	40,592	5,281	34·11	180,154	751	26·70	20,048	11,468	45·83	525,630			
Taranaki	606	33·00	19,998	4,503	35·00	157,605	427	40·00	17,080	177	40·00	7,080			
Hawke's Bay ...	723	26·27	18,993	4,073	34·80	141,740	763	35·88	27,377	666	50·00	33,300			
Wellington ...	5,738	29·50	169,261	21,785	37·75	822,383	1,462	35·40	51,754	182	32·00	5,824			
Marlborough ...	1,810	30·00	54,300	1,609	33·00	53,097	5,914	32·00	189,248	1*	...	...	1,090	25·00	27,250
Nelson	1,232	26·48	32,622	4,404	37·26	164,096	3,324	34·95	116,185	9*	...	...			
Westland	7*	...	...	18*	...	...	...	...	...	...	...	...			
Canterbury ...	119,531	24·71	2,834,864	164,869	32·28	5,321,589	9,396	30·12	282,979	...	...	...			
Otago	31,981	27·39	875,959	199,382	41·15	8,204,569	4,477	33·80	151,322	...	...	...			
Totals	163,462	24·76	4,046,589	405,924	37·06	15,045,233	26,514	32·22	855,993	12,503	45·77	571,834	1,090	25·00	27,250

*Not included in averages.

NUMBER OF ACRES UNDER CULTIVATION IN EACH PROVINCIAL DISTRICT, 1902.

Provincial Districts	In Grass or Clover, sown after land ploughed.	In Grass, surface-sown: land not ploughed.	In Hay, included in either or both of the previous Columns.	In Bare Fallow.	In Grain-crops (for threshing only).	In Green and other Crops.	In Garden	In Orchard or Vineyard.	Total in Grass, Crop, and Fallow.	In Plantations of Forest-trees.	Tussock or Native Grass, and unimproved.
Auckland ..	658,391	1,385,628	11,767	15,973	21,766	88,155	3,967	11,667	2,185,547	9,685	3,482,212
Taranaki ..	157,218	602,383	8,018	460	5,890	15,735	1,068	882	783,636	1,292	254,795
Hawke's Bay ..	423,514	1,388,599	6,247	1,210	6,700	24,148	1,118	1,436	1,846,725	4,375	1,485,644
Wellington ..	285,400	2,263,018	9,688	1,649	31,048	56,208	2,376	3,937	2,643,636	4,029	1,196,912
Marlborough ..	88,327	267,752	1,086	661	11,824	17,869	258	441	387,132	1,140	1,890,674
Nelson ..	117,665	326,235	2,918	246	10,382	29,240	477	2,794	487,039	1,621	1,536,647
Westland ..	7,299	48,470	283	74	42	1,124	61	107	57,177	10	441,311
Canterbury ..	1,492,942	363,985	16,051	9,440	307,647	269,379	4,556	3,134	2,451,083	21,926	4,020,583
Otago ..	1,464,444	278,908	6,926	26,234	239,580	271,109	3,803	2,438	2,286,516	4,692	8,021,849
Totals ..	4,695,200	6,924,978	62,984	55,947	634,879	772,967	17,684	26,836	13,128,491	48,770	22,330,627

ACREAGE UNDER SOWN GRASSES, AND CULTIVATION GENERALLY, FOR EACH COUNTY, AS ON THE 15TH OCTOBER, 1901.

Counties.	In Sown Grasses, after having been ploughed.	In Sown Grasses, not previously ploughed.	Land broken up but not under Crop.	Total under Crop.	In Garden.	In Orchard.	Plantations of Forest Trees.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Mongonui	8,970	20,993	881	1,986	111	243	13
Whangaroa ..	703	4,062	2	438	29	72	1
Bay of Islands ..	5,447	28,522	184	744	143	261	21
Hokianga	628	19,496	..	850	125	322	52
Rodney	12,673	87,636	363	1,365	176	1,208	91
Whangarei ..	21,016	88,650	196	2,256	141	1,289	348
Otamatea	7,156	61,032	207	540	66	330	36
Hobson	1,057	57,684	704	1,042	263	255	256
Waitemata ..	19,628	29,426	1,320	1,268	295	2,074	216
Eden	15,516	4,554	54	2,650	1,002	524	281
Manukau	108,463	89,121	5,808	18,386	385	1,525	1,126
Coromandel ..	3,117	12,295	27	172	84	97	7
Thames	4,502	8,435	21	694	50	421	17
Ohinemuri ..	6,713	8,108	236	1,737	237	174	7
Waikato	130,142	16,020	1,032	10,180	115	526	4,500
Raglan	14,389	76,461	79	3,074	92	206	25
Waipa	61,439	8,366	223	12,203	141	604	799
Piako	121,049	56,997	2,635	22,250	107	279	1,154
Kawhia and West Taupo	13,930	54,576	481	3,611	38	124	222
East Taupo and Rotorua	4,261	6,934	391	844	45	68	146
Tauranga	27,099	18,273	412	8,067	120	399	148
Whakatane ..	6,036	7,563	359	3,126	8	45	5
Opotiki	11,387	10,150	299	3,923	46	101	9
Waiapu	19,653	158,072	.	1,812	31	69	16
Cook	33,417	452,202	59	6,698	117	451	189
Wairoa	24,168	271,675	34	2,678	123	155	188
Hawke's Bay ..	208,792	383,143	410	16,087	633	775	1,764
Patangata	81,278	360,876	11	3,405	113	128	828
Waipawa	109,276	372,905	755	8,678	249	378	1,595
Clifton	11,973	46,528	40	1,961	97	97	12
Taranaki	53,662	144,076	161	6,281	450	400	398
Stratford ..	1,600	150,808	11	1,236	53	44	38
Hawera	47,114	146,792	62	7,177	329	143	266
Patea	42,869	114,179	186	4,970	139	198	578
Waitotara	28,644	77,963	204	3,111	152	243	184
Wanganui	17,140	169,343	87	3,758	166	294	218
Rangitikei ..	61,271	226,331	175	14,751	190	399	967
Oroua	17,369	160,700	142	12,712	298	864	476
Kiwitea	2,251	141,322	58	2,381	28	187	34
Pohangina ..	270	79,688	14	491	45	164	3
Manawatu ..	46,615	51,432	627	12,918	70	168	391
Horowhenua ..	4,435	98,019	9	3,069	140	305	108
Hutt	7,961	167,744	26	1,839	590	334	194
Wairarapa South ..	64,544	379,766	100	18,447	230	320	814
Masterton	29,197	290,107	166	11,637	180	245	380
Castlepoint ..	3,986	83,941	..	352	18	25	120

ACREAGE UNDER SOWN GRASSES, ETC.—*continued.*

Counties.	In Sown Grasses, after having been ploughed.	In Sown Grasses, not previously ploughed.	Land broken up but not under Crop.	Total under Crop.	In Garden.	In Orchard.	Plantations of Forest Trees.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Akitio	528	107,193	..	122	74	38	30
Pahiatua	730	135,781	30	1,111	130	249	68
Eketahuna ..	444	57,544	7	376	48	73	7
Mauriceville ..	15	36,144	4	181	17	39	5
Marlborough ..	55,749	131,666	574	25,558	163	288	1,068
Sounds	2,931	96,207	52	1,191	68	121	24
Kaikoura	29,647	39,879	35	2,944	27	32	48
Collingwood ..	2,943	35,647	14	1,156	16	279	7
Waimea	29,830	164,290	186	21,288	272	2,202	238
Buller	791	7,047	..	134	58	146	..
Inangahua ..	4,659	27,724	..	888	8	75	2
Amuri	55,363	89,416	45	8,607	50	37	1,072
Cheviot	24,079	2,111	1	7,549	73	55	302
Westland	4,759	28,318	52	804	37	57	4
Grey	2,540	20,152	22	362	24	50	6
Ashley	257,527	130,850	1,325	81,961	685	473	2,327
Selwyn	310,427	22,152	1,779	133,581	1,846	1,259	5,816
Akaroa	26,786	155,228	..	3,302	116	376	375
Ashburton ..	421,488	19,787	1,581	161,444	653	354	9,775
Geraldine	129,458	11,865	680	57,544	245	239	1,340
Levels	86,319	2,804	455	41,992	380	253	1,007
Waimate	205,386	17,327	3,376	80,459	570	143	662
Mackenzie ..	55,601	3,972	244	16,743	61	37	624
Waitaki	199,890	28,348	2,372	64,878	404	275	1,149
Waihemo	34,525	4,283	460	9,586	87	68	144
Waikouaiti ..	21,515	51,282	92	6,793	118	119	102
Peninsula	3,279	11,901	5	1,554	252	42	60
Taieri	79,967	15,429	1,263	26,010	657	381	521
Bruce	102,273	7,075	383	38,824	155	72	330
Clutha	177,323	30,261	996	51,995	347	173	497
Tuapeka	102,501	22,660	1,236	33,882	157	340	153
Maniototo	44,463	10,668	882	18,214	206	15	330
Vincent	21,384	1,820	3,140	12,350	124	204	76
Lake	10,777	5,375	3,683	11,000	132	94	157
Southland	513,358	50,784	10,355	180,737	900	554	904
Wallace and Fiord ..	153,108	38,678	1,367	54,857	254	96	266
Stewart Island ..	81	344	..	9	10	5	3
Total	4,695,200	6,924,978	55,947	1,407,846	17,684	26,836	48,770

The extent of land in cultivation (including sown grasses and land broken up but not under crop) amounted to 13,128,491 acres, Of this area, land under artificial grasses comprised 88·51 per cent.; land under grain-crops, 4·83 per cent.; land under root and green crops, 5·89 per cent.; land in garden and orchard, 0·34 per cent.; and land in fallow, 0·43 per cent. Full details for the last fifteen years are tabulated.

NUMBER OF ACRES IN GRASS, UNDER EACH CLASS OF CROP, AND IN BARE FALLOW, 1888 TO 1902.

Year.	In Grass or Clover, sown after land ploughed.	In Grass or Clover, surface-sown: land not ploughed.	In Hay, included in either or both of the previous Columns.	In Bare Fallow.	In Grain-crops (for threshing only).	In Green and other Crops.	In Garden.	In Orchard or Vineyard.	Total in Grass, Crop, Fallow, Garden, and Orchard.	In Plantations of Forest-trees.
1888	2,884,007	3,053,052	67,812	154,266	738,603	454,824	8,608	16,329	7,309,689	28,565
1889	2,941,888	3,337,423	50,656	142,747	793,866	454,243	8,561	15,246	7,693,974	33,938
1890	3,027,912	3,497,137	45,889	149,979	826,505	513,893	8,568	15,771	8,039,765	28,928
1891	3,250,543	3,715,675	44,045	210,509	703,329	582,439	9,810	17,047	8,489,352	35,310
1892	3,327,755	4,076,126	46,652	140,454	769,778	579,112	9,608	19,627	8,922,460	38,723
1893	3,611,393	4,650,652	61,811	154,254	753,091	544,355	9,763	20,085	9,743,593	40,401
1894	3,865,348	4,833,549	60,740	142,342	669,850	551,962	9,951	21,109	10,094,111	39,826
1895	3,908,581	4,921,136	56,614	140,494	560,179	597,686	10,263	21,401	10,159,740	55,386
1896	4,254,983	5,030,247	96,818	58,039	674,850	680,750	17,749	19,362	10,735,980	43,246
1897	4,308,720	5,733,138	109,466	57,158	688,297	762,762	16,924	22,291	11,589,290	47,630
1898	4,123,304	5,743,245	67,865	60,792	727,038	790,184	16,177	22,387	11,483,127	52,546
1899	4,065,860	6,178,879	75,620	51,164	892,468	796,235	16,930	22,983	12,024,519	47,216
1900	4,337,594	6,515,708	68,234	78,751	745,685	796,773	16,890	24,401	12,515,802	48,942
1901	4,425,738	6,656,174	68,023	67,747	721,325	765,051	17,411	25,777	12,679,223	49,394
1902	4,695,200	6,924,978	62,984	55,947	634,879	772,967	17,684	26,836	13,128,491	48,770

Wheat.

The wheat harvest of 1902 showed an average yield of 24·76 bushels per acre, the crop realised being 4,046,589 bushels, against 6,527,154 bushels in 1901, 8,581,898 bushels in 1900, 13,073,416 bushels in 1899, 5,670,017 bushels in 1898, 5,926,523 bushels in 1897, 6,843,768 bushels in 1896, 3,613,037 bushels in 1895, 4,891,695 bushels in 1894, 8,378,217 bushels in 1893, and 10,257,738 bushels in 1892.

The quantity of wheat of last season's harvest held by farmers in October, 1901, as shown by the gazetted figures, was 3,182,007 bushels, an amount which excludes stocks of grain and flour held by merchants and millers. The total amount of wheat exported during the year 1901 was 2,301,092 bushels, while the imports were only 1,662 bushels, most probably for seeding purposes.

The imports of flour during 1901 were 615 centals (30¾ tons), and the exports 1,305 tons.

The area under wheat for threshing decreased from 206,465 acres in 1901 to 163,462 acres in 1902; and this decrease of 43,003 acres was shared by all the provincial districts. In addition to the area cut for threshing, 454 acres were cut for chaff, and 14 acres for ensilage, while 3,544 acres were fed down with stock, so that the total area sown in wheat was 167,474 acres.

Of the 163,462 acres in wheat (for threshing) this year, no less than 119,531 acres were in Canterbury, and 31,981 acres in Otago.

The area under wheat for grain, the estimated gross produce in bushels, and the average yield per acre for each of the last twelve years were :—

Year.	Land under Wheat.	Estimated Gross Produce.	Average Yield per Acre.
	Acres.	Bushels.	Bushels
1891	301,460	5,723,610	18·99
1892	402,273	10,257,738	25·50
1893	381,245	8,378,217	21·98
1894	242,737	4,891,695	20·15
1895	148,575	3,613,037	24·32
1896	245,441	6,843,768	27·88
1897	258,608	5,926,523	22·92
1898	315,801	5,670,017	17·95
1899	399,034	13,073,416	32·76
1900	269,749	8,581,898	31·81
1901	206,465	6,527,154	31·61
1902	163,462	4,046,589	24·76

The following gives the area in wheat and the estimated produce, for the Australian States, for the season of 1901:—

State.	Wheat-crop.		
	Acres.	Bushels.	Bushels per Acre.
Queensland	79,304	1,194,088	15·06
New South Wales	1,530,609	16,173,771	10·57
Victoria	2,017,321	17,847,321	8·88
South Australia	1,913,247	11,253,148	5·88
Western Australia	74,130	774,176	10·44
Tasmania	51,825	1,110,421	21·43

Consumption of Wheat.

The yearly consumption of wheat per head of population in New Zealand, as previously stated, has been estimated at 6 bushels.

The difficulty of correctly computing the consumption of bread-stuffs is shown by the great differences in the estimates arrived at.

The average quantity required per head of the population (exclusive of that used for seed) has been calculated at 6·4 bushels for New South Wales, and 4½ to 5 bushels for Victoria, by statisticians in those States.

The average consumption of wheaten bread-stuffs in New Zealand thus appears to be somewhat higher than in Victoria.

The following is the average annual consumption of wheat per inhabitant in some of the principal countries of the world:—

United Kingdom	5·6 bushels.
Canada	6·6 "
France	8·1 "
Germany	3·0 "
Russia	2·1 "
Italy	5·4 "
United States	4·5 "

The English consumption during the last twenty-five years appears to have ranged from 5½ to 6 bushels per head of population.

Oats.

The extent of land in oats grown for grain in 1902 was 405,924 acres, against 449,534 acres in the preceding year, a decrease of 43,610 acres. The Provincial Districts of Otago (199,382 acres) and Canterbury (164,869 acres) account for 364,251 acres of the total area, Wellington taking third place with 21,785 acres. The breadth of land in oats for chaffing, ensilage, or feeding down with stock was 199,508 acres, an increase of 8,001 acres on the figures for 1901.

The average yield per acre was, in 1902, 37·06, and in 1901, 42·45 bushels, the quantity of produce decreasing from 19,085,837 bushels to 15,045,233 bushels.

The oat-crop for 1901 in the Australian States was as follows:—

	Acres.	Bushels	Average per Acre.
Queensland	385	7,855	20·40
New South Wales ..	29,383	593,548	20·20
Victoria	362,689	9,582,332	26·42
South Australia ..	27,988	366,229	13·09
Western Australia ..	5,881	86,971	14·79
Tasmania	45,073	1,406,913	31·21

Maize.

This is a very important crop. In 1902 there were 12,503 acres sown for grain, the estimated yield being 571,834 bushels of corn, an average of nearly 46 bushels per acre. Maize is grown only in the North Island, with the exception of a few acres in Nelson and Otago. The Provincial District of Auckland had 11,468 acres; Hawke's Bay, 666 acres; Taranaki, 177 acres; and Wellington, 182 acres, in 1902. As considerable interest is taken in this crop, the group of counties where it is chiefly grown is stated, viz.: Hobson, Manukau, Ohinemuri, Rodney, Whangarei, Mongonui, Hokianga, Tauranga, Whakatane, Opotiki, Waiapu, Cook, Wairoa, and Hawke's Bay. Small acreages are found in all the counties of the Auckland, and in most of the counties in the Taranaki, Hawke's Bay, and Wellington districts.

Barley.

Under barley, 26,514 acres were returned in 1902, the estimated crop being 855,993 bushels, an average yield per acre of 32·28 bushels. In 1901 the area under barley was 30,831 acres, and the yield 1,027,651 bushels, or 33·33 bushels per acre.

Rye.

There were 1,090 acres in rye, yielding 27,250 bushels, or at the rate of 25 bushels per acre, in 1902, against 1,388 acres and 31,169 bushels, the rate being 22·45 bushels per acre, in 1901.

Peas and Beans.

The area under peas for threshing in the season 1902 was 7,242 acres, yielding 164,712 bushels, or an average of 22·88 bushels per acre, against 5,888 acres and 214,211 bushels, or 36·38 bushels per acre, in the previous year.

Under beans there were 3,504 acres, giving a return of 88,905 bushels, the average being 25·65 bushels per acre, against 2,927 acres and 99,964 bushels (34·29 bushels per acre) in 1901.

Potatoes.

The area under potatoes was 31,259 acres in 1902, yielding the return of 206,815 tons, or a rate of 6·61 tons per acre, against 28,524 acres in 1901, and 169,042 tons (or 5·9 tons per acre), an increase of 2,735 acres and 37,773 tons.

A comparison of the gross yield of potatoes with the amount exported in each of the twelve years, 1883–94, showed that for such period an average of 597 lb. per head of population was retained in the colony. Allowing for waste, pig-feed, and seed, the average amount retained for human consumption was found to be 449 lb. a head.

Turnips.

Turnips and rape form a most important crop in a sheep-breeding country such as New Zealand, and in 1892 the area of land under this crop amounted to 422,359 acres. The returns for 1895 gave only 385,788 acres, but for the present year 521,842 acres (398,508 acres in turnips and 123,334 in rape) were set down as under these crops; and there were 10,448 acres in addition: in mangolds (8,249 acres), beet (515 acres), and carrots (1,684 acres).

The cost of growing turnips sown broadcast and in drills may be: Broadcast—Ploughing, 5s. 6d. per acre; harrowing, 3s. per acre; rolling, 1s. per acre; seed and sowing, 1s. 6d. per acre: total, 11s. per acre. Drill—Ploughing, 5s. 6d; grubbing, 3s.; harrowing, 3s.; rolling, 1s.; drilling, 3s. 6d.; hand-hoeing, 10s.; horse-hoeing, 5s.; seed and sowing, 2s. 6d.; manure, 10s. to 15s.: total, £2 3s. 6d. to £2 8s. 6d. per acre.

Hops.

There were 844 acres under hops in 1902, as against 1,050 acres last year. No account of the produce for the last seven years was taken, but in 1895 the yield was 7,556 cwt. In 1900 the total quantity used by the breweries in the colony amounted to 5,020 cwt. Of the land under hops in 1902, 740 acres were in the Waimea County, and 84 in Collingwood, both in the Provincial District of Nelson. The import of hops in 1901 amounted to 927 cwt., and the exports to 4,946 cwt., of which 4,298 cwt. were the produce of the colony.

Tobacco.

The growing of tobacco does not progress in New Zealand. In 1889, 34 acres were being cultivated; in 1890, 25 acres; in 1891, 16 acres; in 1892, 6 acres; in 1893, 4 acres; in 1894, 4 acres; and in 1895, 5 acres, producing 1,599 lb. of dried leaf. Statistics of this crop have not been taken since 1895.

Gardens and Orchards.

The extent of land in garden was 17,684 acres, of which 13,787 acres were private gardens, and 3,897 acres market gardens. In plantations of forest-trees there were 48,770 acres.

There were 26,294 acres in orchard in 1902, an increase of 1,039 acres on the area so returned in the previous year, and 543 acres were returned as "vineyard." The fruit-crop of the colony is supplemented by a considerable import from the Australian States and Fiji.

Sown Grasses and Seeds.

New Zealand is essentially suited for grazing purposes. Wherever there is light and moisture, English grasses thrive when the natural bush and fern are cleared off. In fact, the white clover gradually overcomes the fern; and, from the mildness of the winter season, there are few places where there is not some growth, even in the coldest months of the year. In all parts of the colony stock live, although in varying condition, without other food than such as they can pick up. Sown grass land, as might be expected, heads the list of cultivations.

At the beginning of the year 1902 there were 11,620,178 acres under artificial grasses. Of these, 4,695,200 acres had been previously ploughed, presumably under grain or other crops, while 6,924,978 acres had not been ploughed. Much of the latter area was bush or forest land, sown down in grass after the timber had been wholly or partially burnt off.

The area under ryegrass for seed in the season of 1902 was 16,244 acres, yielding 356,765 bushels of 20 lbs., or a rate of 21·97 bushels per acre, against 23,270 acres and 475,418 bushels, an average of 20·44 bushels per acre, in 1901.

In cocksfoot there were 27,876 acres, which yielded 4,481,340 lb., or an average of 161 lb. per acre, against 35,758 acres and 5,401,764 lb. (a rate of 151 lb. per acre) in the previous year.

Seeds for sowing pasture lands are used much as in Great Britain, the following being a common mixture: Perennial ryegrass, 25 lb. to 30 lb. per acre; cocksfoot, 2 lb.; alsike, 2 lb.; timothy, 3 lb.; cowgrass, 2 lb.; red clover, 2 lb.; white clover, 2 lb.; rape, 1 lb.: total, 39 lb. to 44 lb. per acre. Pastures are renewed at intervals of from four to eight years, according to the nature of the land.

The following shows the acreage in sown grasses in Australasia in 1900–1901:—

	Acres.
Queensland	24,898
New South Wales	442,741
Victoria	207,896
South Australia	22,186
Western Australia (1900)	2,590
Tasmania	306,180
New Zealand	11,081,912

It will be observed that the acreage of land under sown grasses was eleven times as great in New Zealand as in the whole of

Australia and Tasmania. When compared in size with the States of Australia, New Zealand is not large — about one-thirtieth of their total area—but in respect of grazing capabilities the relative importance of this country is much greater. Australia is generally unsuitable, owing to conditions of climate, for the growth of English grasses, and the amount of feed produced by the natural grasses throughout the year is very much less per acre than is obtained from the sown grass lands in New Zealand; indeed, it may be said that the average productiveness of grass-land is about nine times as great here as in Australia, or, in other words, that land in this colony covered with English grasses may be considered equal, for grazing purposes, to an area of Australian land about nine times as great.

In addition to the artificially-sown pastures, the returns for 1902 show that 22,330,627 acres of unimproved land, including that in tussock or native grass, belonged to the occupied holdings, and were available for stock-feeding by the sheep-farmers and cattle-farmers of the colony.

SECTION XX.—MINING.

THE natural mineral resources of New Zealand are very great, and have exercised in the past a most important influence on the development and progress of the colony. Gold to the value of £59,159,883 was obtained prior to the 31st December, 1901; the value of the produce for the year 1901 having been £1,753,783. In the earliest years the gold was obtained from alluvial diggings, but at the present time much is taken from gold-bearing quartz, which is distributed widely through several parts of the colony, and thus there is a much better prospect of the permanency of this industry than alluvial diggings alone could give.

The yield of silver to the end of 1901 amounted to £380,806 in value, the quantity mined in 1901 having been 571,134 oz., valued at £65,258.

Of other minerals, the value of the product to the same date amounts to £19,520,275, of which kauri-gum yielded £10,775,945, and coal, with coke, £8,458,380.

The quantities and values of precious metals and minerals obtained during the year 1901, and the total value of all mining produce since 1853, are:—

	1901.		Total Value since 1853.
	Oz.	£	£
Gold	455,561	1,753,783	59,159,883
Silver	571,134	65,258	380,806
	1,026,695	1,819,041	59,540,689
	Tons.		
Copper-ore ..	3	105	18,088
Chrome-ore ..	..	..	37,477
Antimony-ore ..	30	136	52,598
Manganese-ore ..	208	614	60,846
Hæmatite-ore ..	..	..	226
Mixed minerals ..	..	7,775	110,691
Coal	1,227,638	676,174	8,433,576
Shale	12,048	6,024	6,024
Coke (exported) ..	..	..	24,804
Kauri-gum ..	7,541	446,114	10,775,945
		£2,955,983	£79,060,964

Of the gold entered for exportation during the year ended the 31st March, 1902—viz., 439,005 oz., representing a value of

£1,680,382—about 60 per cent. came out of quartz-mines; but, if the total yield of gold obtained in the colony be taken, the value of which to 31st March, 1902, is £59,536,582, about 25 per cent. came from quartz-mines, and 75 per cent. from alluvial workings.

Mineral Production (Value) of Australasia to end of 1900.

The total value of mineral production for Australasia to the end of the year 1900 is shown in the following table. The figures, except those for New Zealand, are taken from Mr. Coghlan's "Statistics of the Six States of Australia and New Zealand," 1900–1901:—

State or Colony.	Gold.	Silver and Silver-lead.	Copper.	Tin.	Coal.	Other Minerals.	Total.
	£	£	£	£	£	£	£
New S'th Wales	48,740,533	30,487,114	5,444,781	6,525,262	37,315,915	3,889,307	132,402,912
Victoria ...	257,386,448	856,539	266,395	711,317	895,167	287,994	260,343,860
Queensland ...	50,209,783	725,801	2,055,465	4,600,143	2,632,112	287,668	60,510,972
South Australia	2,294,975	106,563	22,321,969	27,096	...	506,562	25,257,165
W'st'n Australia	22,914,059	3,844	251,726	158,199	82,411	395,831	23,806,070
Tasmania... ...	4,598,412	2,177,658	3,003,708	7,060,108	407,014	336,470	17,583,370
New Zealand ...	57,406,100	315,548	17,983	...	7,757,402	10,607,948*	76,104,981
Australasia ...	443,550,310	34,673,067	33,302,027	19,082,125	49,090,021	16,311,780	596,009,330

* Inclusive of kauri-gum to the value of £10,329,881.

Gold-mining.

The history of the finding of gold in this colony was briefly sketched in the Year-books for 1893 and 1894, and need not, therefore, be repeated here, but a word may be said on recent developments in mining. Great changes have taken place since the early days, when a man wanted but a pick and shovel, tin dish and cradle, to enable him to earn a livelihood on the diggings. The rich shallow gravels have been to all appearances worked out, the ground is getting deeper, the inroads of water more troublesome, and greatly-improved appliances are needed in order to pump the water or wash away the masses of drift that overlie the gold-bearing layers on the bottom.

The difficulty for many years experienced in working the beds of the larger rivers has been at last overcome by the use of dredging machinery. Dredging has not only been adopted for working river-beds, but has also been applied with advantage to alluvial flats, which cannot be otherwise profitably worked. The total number of dredges at the end of the year 1901 was: Working, 183; being built, 59; not working, 33; undergoing removal, 19; total, 294.

So numerous are rapid streams and rivers in New Zealand that water is generally available for supplying direct motive-power for all kinds of mining machinery, as well as for the generation and transmission of electric energy where the water-supply is distant

from the scene of operations. It has been used at Skipper's for years to generate electricity by means of dynamos, the current being transmitted a distance of several miles over a high range for the purpose of driving a crushing battery. Great improvements have been made in the appliances since the method was first adopted.

The total number of gold-miners employed in 1901 was 12,533 as against 13,502 for the previous year. In some places, more especially in Otago, Nelson, and the West Coast, many of the miners do not depend entirely on mining, but employ a part of their time in farming and other pursuits.

Last year (1901) an Act was passed reducing the fee payable for a miner's right from 10s. to 5s.

The total quantity of gold entered for export during the years ending 31st March, 1901, and 31st March, 1902, for the several districts, and the total quantity and value of the gold exported from the colony from the 1st January, 1857, to the 31st March, 1902, are shown hereunder; but this does not necessarily include the whole of the gold produced, as no doubt much has been taken out of the colony from time to time by people who have evaded the duty, and a good deal has been used for making jewellery and ornaments:—

TABLE SHOWING THE QUANTITY AND VALUE OF GOLD ENTERED FOR EXPORTATION FROM NEW ZEALAND FOR THE YEARS ENDED THE 31ST MARCH, 1901 AND 1902, AND THE TOTAL QUANTITY AND VALUE FROM JANUARY, 1857, TO 31ST MARCH, 1902.

District.	Year ending 31st March, 1901.		Year ending 31st March, 1902.		Increase for Year ending 31st March, 1902.	Total Quantity and Value from January, 1857, to 31st March, 1902.	
	Quantity.	Value.	Quantity.	Value.			
	Oz.	£	Oz.	£	Oz.	Oz.	£
Auckland ..	166,049	604,018	201,861	728,498	35,812	2,852,304	10,673,452
Wellington ..	..	..	..	..	..	188	706
Marlborough	247	970	277	1,108	30	87,099	339,298
Nelson ..	5,126	19,238	4,207	17,118	− 919*	267,362	1,055,495
West Coast ..	85,779	343,728	104,441	418,322	18,662	6,103,471	24,268,118
Canterbury ..	22	84	19	71	− 3*	123	488
Otago ..	135,753	548,444	128,200	515,265	−7,553*	5,852,642	23,199,030
Totals ..	392,976	1,516,482	439,005	1,680,382	46,029	15,163,189	59,536,582

* Decrease.

It will be seen from the above table that there was last year an increase in the yield of gold of 46,029 oz. on the figures for the preceding twelve months.

Of the total quantity of gold entered for exportation last year Auckland contributed 45·98 per cent.; Marlborough, 0·07 per cent.; Nelson, 0·96 per cent.; West Coast, 23·79 per cent.; and Otago, 29·20 per cent.

Production of Australasia.

The gold yield of Australasia for 1897, 1898, 1899, and 1900, was as under:—

	1897. Oz.	1898. Oz.	1899. Oz.	1900. Oz.
Queensland ..	796,885	920,048	946,894	963,189
New South Wales ..	292,217	340,493	496,196	345,650
Victoria	812,765	837,257	854,500	807,407
South Australia ..	10,322	31,961	23,122	24,086
Western Australia ..	675,082	1,050,184	1,643,877	1,580,950
Tasmania	60,735	74,233	83,992	81,125
New Zealand ..	251,645	280,175	389,558	373,616
"	2,899,651	3,534,351	4,438,139	4,176,023

The increase for the period is 1,276,372 oz. The mint value of Australasian gold averages £3 16s. per ounce, and a comparison of value is therefore as follows: 1897, £11,018,674; 1898, £13,430,533; 1899, £16,864,927; 1900, £15,868,887: increase, 1897 to 1900, £4,850,213.

The Cyanide Process

On the Hauraki Goldfields gold is often found either in so finely divided a form that the ordinary methods of amalgamation fail to recover a payable percentage, or it is associated with, or entangled in, base metallic minerals which necessitate the adoption of scientific, and often costly, methods of treatment. In these goldfields the successful use of the cyanide process is steadily extending, with the result that many ores that formerly were worked at a loss by amalgamation processes now yield regular returns on the capital invested.

Indeed, the cyanide process is the most noteworthy improvement as yet introduced in the treatment of gold- and silver-bearing ores. It is particularly suitable where the gold is found in the ore in fine particles; whereas, if the gold be at all coarse, cyanide will do no more than cleanse and brighten its surface and render it fitter for amalgamation. In a paper on "Cyaniding in New Zealand," Mr. James Park, F.G.S., comments on the treatment of these ores:—

Dry Crushing.

Prior to the introduction of the cyanide process the ores were treated by dry crushing and hot pan amalgamation with chemicals, by which a recovery of 65 per cent. was effected.

When cyanide treatment was adopted, dry crushing was naturally continued at the different mills, the dry pulverised material being charged into shallow vats and treated directly with cyanide. From 65 per cent. by pan amalgamation the recovery rose at a bound to 85, and in some cases to 90 per cent., and the results were so satisfactory that no further improvement was considered possible.

In a few years, however, it became apparent that dry crushing possessed many disadvantages as compared with wet crushing, the principal ones being the cost of the preliminary drying of the ore, the low duty of the stamps, and the large number of vats required for leaching. In 1897 mine-owners began to turn their attention to wet crushing, and one by one, since the beginning of 1898, the different mills have been adopting wet crushing, until at the present time dry crushing is the exception, and not, as it was *four* years ago, the rule.

Wet Crushing.

I. For ores containing a large proportion of free, easily amalgamable gold, with a certain proportion of fine or "float" gold, and silver-sulphide, the mill practice is:—

(*a.*) Crushing with water.
(*b.*) Plate amalgamation.
(*c.*) *Spitzlutte* separation of sands and slimes.
(*d.*) Cyanide treatment of sands and slimes by ordinary percolation.

A typical example of an ore of this class is that of the Kauri Gold Estates, at Opitonui, where a forty-stamp mill is erected. The sands and heavy slimes are subjected to the "double" cyanide treatment; but it is doubtful if the additional saving will pay for the extra labour involved. So far no provision has been made for the treatment of the fine slimes. If they are worth it, they will probably be treated by agitation and decanting.

II. For a clean ore, almost identical with that described above, but containing a small proportion of free amalgamable gold and a large proportion of fine cyaniding gold, with little or no slimes, the method of treatment at the Crown Mines is:—

(*a.*) Crushing with cyanide solution.
(*b.*) Direct cyanide treatment of mixed sands and slimes by percolation.
(*c.*) Plate amalgamation of free gold.

With an ore exceptionally free from slimes, it seems that the order of treatment could be reversed with advantage as regards both stamp duty and efficiency of amalgamation on the plates.

III. For ores containing some easily amalgamable gold, and fine gold associated with pyrites and silver-sulphides, the treatment used is:—

(*a.*) Crushing with water.
(*b.*) Plate amalgamation.
(*c.*) *Spitzlutte* separation of fine slimes, if necessary.
(*d.*) Vanner concentration of sulphurets.
(*e.*) Cyanide treatment of sands by percolation.
(*f.*) Cyanide treatment of sands by agitation and decanting.
(*g.*) Cyanide treatment of concentrates by agitation.

The practice at the Woodstock mill is a typical example of this system, the details being as follows: The ore is chalcedonic and finely crystalline quartz, containing a small proportion of clayey matter and a little pyrites. It is stained a greyish- and blackish-brown colour through the presence of iron and manganese oxides.

IV. For very slimy ores, containing very little easily amalgamable gold and a large proportion of extremely fine gold, besides the usual silver-sulphides, the treatment is as follows:—

(*a.*) Crushing with cyanide solution.
(*b.*) *Spitzlutte* separation of sands and slimes.
(*c.*) Treatment of sands by percolation.
(*d.*) Treatment of slimes by agitation and decanting.

This method of treatment is subject to various modifications as regards mechanical appliances and methods of application, but the general principles are the same everywhere.

By a statute passed in December, 1897, and termed "The Cyanide Process Gold-extraction Act, 1897," an agreement was

approved by Parliament under which the Government arranged to purchase the patent rights in New Zealand of the Cassel Gold-extracting Company, thus rendering the said patent rights available for mining purposes at reasonable rates of royalty. The process used under the patent is what is commonly known as the cyanide process, and the operation of the Act should prove highly important in the development of low-grade ores, and otherwise promote the mining industry. The royalties received by the Government up to the 31st March, 1902, amounted to £4,577 11s. 1d. The payment of royalties will cease when the total amount disbursed for the purchase of the patent rights has been repaid to the Consolidated Fund.

Quartz and Alluvial Workings.

The working of quartz mines and deep alluvial drifts necessitates a large outlay of money before returns can be expected, and can only be undertaken when capital is available. In the case of quartz mines, they must be sufficiently opened up to ascertain the value and extent of the reefs preparatory to the erection of reduction machinery, which must be constructed on the most modern principles to insure efficiency and economy in the handling and treatment of large bodies of ore.

The introduction of capital has the effect of enabling the claims not only to be opened up at greater depths than heretofore, but they will also be worked in a more systematic and economical manner. Modern machinery and appliances are introduced and erected for the reduction and treatment of the ores, and a far larger percentage of the gold is being recovered than has been the case in the past.

The improved appliances introduced in dredging and hydraulic elevating and sluicing machinery have made it possible to work with profit alluvial ground and drifts that a few years ago could not be handled remuneratively.

In the successful development of alluvial drifts containing only a few grains of gold to the ton or cubic yard, a large and constant supply of water is of primary importance, and to secure this the construction of expensive races must be undertaken as the initial step towards systematic working.

In the colony there are large areas covered with auriferous drifts which will prove remunerative if a sufficient quantity of water can be obtained to work them on an extensive scale; and the number of men who can be profitably employed in alluvial workings will necessarily be in proportion to the quantity of water available.

Coal-mining.

The extent of the coal-measures in New Zealand will make coal-mining one of the large industries in the colony, especially

on the west coast of the Middle Island, where bituminous coal exists equal, if not superior, in quality to coal of the same class in any part of the world.

The progressive increase in the output of coal from 1878 to the end of 1901 is shown below:—

Year.	Raised in the Colony.		Imported.	Total raised in the Colony, and imported, per Annum.	Exported (excluding Coal for Fuel by Ocean Steamers).	Total Consumption of Coal within the Colony.	Yearly Increase in Consumption within the Colony.
	Total.	Yearly Increase.					
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1878 ..	162,218	..	174,148	336,366	3,921	332,445	..
1879 ..	231,218	69,000	158,076	389,294	7,195	382,099	49,654
1880 ..	299,923	68,705	123,298	423,221	7,021	416,200	34,101
1881 ..	337,262	37,339	129,962	467,224	6,626	460,598	44,398
1882 ..	378,272	41,010	129,582	507,854	4,245	503,609	43,011
1883 ..	421,764	43,492	123,540	545,304	7,172	538,132	34,523
1884 ..	480,831	59,067	148,444	629,275	6,354	622,921	84,789
1885 ..	511,063	30,232	130,202	641,265	2,371	638,894	15,973
1886 ..	534,353	23,290	119,873	654,226	2,862	651,364	12,470
1887 ..	558,620	24,267	107,230	665,850	12,951	652,899	1,535
1888 ..	613,895	55,275	101,341	715,236	27,678	687,558	34,659
1889 ..	586,445	-27,450*	128,063	714,508	39,290	675,218	12,340
1890 ..	637,397	50,952	110,939	748,336	33,404	714,932	39,714
1891 ..	668,794	31,397	125,318	794,112	29,093	764,019	49,087
1892 ..	673,315	4,521	125,453	798,768	28,169	770,599	6,580
1893 ..	691,548	18,233	117,444	808,992	24,288	784,704	14,105
1894 ..	719,546	27,998	112,961	832,507	25,449	807,058	22,354
1895 ..	726,654	7,108	108,198	834,852	26,151	808,701	1,643
1896 ..	792,851	66,197	101,756	894,607	27,974	866,633	57,932
1897 ..	840,713	47,862	110,907	951,620	26,639	924,981	58,348
1898 ..	907,033	66,320	115,427	1,022,460	18,348	1,004,112	79,131
1899 ..	975,234	68,201	99,655	1,074,889	14,146	1,060,743	56,631
1900 ..	1,093,990	118,756	124,033	1,218,023	36,699	1,181,324	120,581
1901 ..	1,227,638	133,648	149,764	1,377,402	77,563	1,299,839	118,515

* Decrease.

It will be seen from the above that, with the exception of 1889, there has been a steady increase in the output of coal from the mines in the colony, year after year, since records have been kept by the Mines Department. The yearly increase in output is principally due to the growing demand for consumption within the colony. During a period of twenty-four years the annual consumption of coal in New Zealand has increased to the extent of 967,394 tons, showing that new industries are quickly springing up, requiring fuel for generating motive-power.

The total output from the mines last year was 1,227,638 tons, as against 1,093,990 tons for 1900, an increase of 133,648 tons. The coal imported from other countries was 149,764 tons, against 124,033 tons in 1900, an increase in the importation last year of 25,731 tons. The imports were 149,004 tons from New South Wales,

758 tons from Queensland, and 2 tons from the United Kingdom. The total export of coal was 168,448 tons, of which 159,643 tons were colonial produce, and 8,805 tons imported coal from other countries. Of the coal exported, 90,885 tons were for coaling direct steamers trading between the colony and the United Kingdom, and has been treated as coal consumed within the colony, these steamers trading wholly between New Zealand and Great Britain. Taking, therefore, the output from the mines and the coal imported, there is a total of 1,377,402 tons, of which 77,563 tons were exported, leaving the consumption within the colony last year 1,299,839 tons, as against 1,181,324 tons for 1900, an increased consumption of 118,515 tons.

The largest increase in the output last year was in the Westport district—namely, 74,911 tons. There was also an increased production from the mines in the Otago District of 23,109 tons, in the Southland district of 18,470 tons, in the Whangarei, Kamo, Ngunguru, and Whauwhau district of 7,418 tons, in the Waikato district of 6,895 tons, in the West Wanganui district of 469 tons, in the Reefton district of 1,723 tons, in the Malvern district of 1,936 tons, in the Miranda district of 430 tons, in the Mokau district of 80 tons; but there was a decline in the Greymouth district of 1,751 tons, and in the Kawakawa and Hikurangi district of 42 tons.

The quantities of coal produced in each district are as under:—

Name of District.	Output of Coal.		Increase or Decrease.	Approximate total Output of Coal up to the 31st December, 1901.
	1901.	1900.		
	Tons.	Tons.	Tons.	Tons.
Kawakawa and Hikurangi ..	53,298	53,340	− 42	1,189,818
Whangarei, Kamo, Ngunguru, and Whauwhau	33,757	26,339	+ 7,418	467,619
Waikato	84,086	77,191	+ 6,895	1,251,254
Mokau	3,513	3,433	+ 80	29,534
Miranda	430	..	+ 430	430
Pelorus	..	..	..	711
West Wanganui	2,208	1,739	+ 469	55,183
Westport	455,057	380,146	+74,911	4,181,550
Reefton	6,102	4,379	+ 1,723	90,246
Greymouth	206,168	207,919	− 1,751	3,083,288
Malvern	16,098	14,162	+ 1,936	399,484
Timaru	..	..	..	10,657
Otago	289,322	266,213	+23,109	4,362,659
Southland	77,599	59,129	+18,470	658,075
Totals	1,227,638	1,093,990	+133,648	15,780,508

The following table, constructed from "Laboratory Reports of the Geological Survey" (Sir J. Hector) gives the composition of samples of New Zealand coals freshly taken from the principal mines:—

Number.	Description.	Locality.	Analysis.				Evaporative Power.*	
			Fixed Carbon.	Hydrocarbon.	Water.	Ash.	1.	2.
1	Anthracite ..	Acheron, Canterbury ..	84·12	1·96	1·80	12·12	10·93	18·50
2	Bituminous ..	Coalbrookdale ..	74·83	20·50	1·16	3·51	9·70	16·45
3	" ..	"	70·00	22·15	2·52	5·33	9·10	15·40
4	" ..	Banbury	69·97	25·71	0·99	3·33	9·09	15·38
5	Altered brown coal	Malvern Hills ..	68·54	19·89	4·15	7·42	8·27	12·50
6	Bituminous ..	Tyneside	65·59	29·18	0·82	4·41	8·52	13·55
7	Glance coal ..	Rakaia Gorge ..	64·51	21·27	6·76	7·46	8·30	13·20
8	Bituminous ..	Wallsend	62·37	31·64	1·66	3·83	8·17	13·82
9	" ..	Grey River	62·37	29·44	1·99	6·20	8·01	13·22
10	Pitch coal ..	Kawakawa	61·16	28·00	2·51	8·33	7·95	12·55
11	Bituminous ..	Preservation Inlet ..	60·88	28·60	4·33	6·19	7·91	12·80
12	Pitch coal ..	Blackball, Grey River	60·20	29·97	8·01	1·82	7·82	12·20
13	Bituminous ..	Mokihinui	59·75	32·14	3·97	4·14	7·76	11·80
14	" ..	Coalpit Heath ..	58·81	38·98	1·02	1·19	7·64	12·96
15	" ..	Mokihinui	57·92	34·94	3·96	3·18	7·50	12·75
16	" ..	Brunner Mine ..	56·62	35·68	1·59	6·11	7·36	12·46
17	" ..	" ..	56·21	37·73	1·50	4·56	7·30	12·36
18	" ..	Westport	56·01	37·17	2·60	4·22	7·28	12·30
19	" ..	Mokihinui	55·59	38·86	3·16	2·39	7·20	12·22
20	" ..	Brunner	54·16	35·85	2·50	7·49	7·04	11·91
21	Altered brown coal	Malvern Hills ..	53·29	32·04	12·65	2·02	6·92	11·50
23	Bituminous ..	Wallsend	53·10	35·47	1·41	10·02	6·90	11·68
23	" ..	Otamataura Creek ..	52·89	36·63	2·19	8·29	6·90	11·70
24	" ..	Near Cape Farewell ..	51·37	38·72	4·38	5·53	6·31	11·60
25	Pitch coal ..	Kawakawa	50·15	42·63	4·18	3·04	6·50	11·80
26	Glance coal ..	Whangarei	50·11	38·68	8·01	3·20	6·50	11·75
27	Pitch coal ..	Kamo	50·01	37·69	9·61	2·69	6·50	11·17
28	Brown coal ..	Malvern Hills ..	49·99	35·42	11·79	2·80	6·49	10·90
29	"	Fernhill	49·95	36·95	12·00	1·10	6·49	10·99
30	" ..	Allandale	47·31	34·26	12·41	6·02	6·15	10·96
31	" ..	Kaitangata	46·48	33·48	14·66	5·38	6·04	10·22
32	" ..	Shag Point	46·21	32·65	16·02	5·12	6·00	10·16
33	" ..	Homebush	44·92	36·00	15·83	3·25	5·83	9·87
34	Pitch coal ..	Hikurangi, Whangarei	44·50	47·00	5·99	2·51	5·78	9·79
35	Brown coal ..	Hokonui	44·28	38·22	16·50	1·00	5·75	9·77
36	" ..	Kaitangata	44·11	38·32	15·44	2·13	5·74	9·96
37	" ..	Nightcaps	43·62	33·68	18·33	4·37	5.67	9·59
38	Pitch coal ..	Shag Point	43·19	30·05	15·82	10·94	5·61	9·52
39	Brown coal ..	Springfield	42·68	33·66	18·65	5·01	5·55	9·38
40	" ..	Orepuki	42·64	36·26	14·44	6·66	5·54	9·38
41	" ..	Kaitangata	38·29	32·43	17·50	11·78	4·87	8·32
42	" ..	Shag Point	35·76	30·86	13·22	20·16	4·64	7·85
43	" ..	Allandale	34·72	41·43	18·99	4·86	4·51	7·63
44	Pitch coal ..	Grey River	34·72	56·48	6·20	2·60	4·51	7·63
		FOR COMPARISON.						
	Newcastle, N.S.W.	Best	58·33	34·17	1·83	5·67	7·50	12·82
	"	Worst	53·34	26·66	3·33	16·67	6·90	11·72

*The second column headed "Evaporative Power" is obtained by the use of a multiple computed from the results of Professor Liversedge's experiments upon the coals of New South Wales. The multiple used for the first column is the one which has long been generally used for computing the evaporative power of coals; but, to prevent any unfair and prejudicial comparison of our coals with those of New South Wales, the second column is given.

As regards the quality of the coal, it cannot be surpassed. The late Sir John Coode, in his presidential address to the Institute of Civil Engineers, London, stated: "The bituminous coal found on the west coast of the Middle Island is declared by engineers to be fully equal, if not superior, to the best description from any part of the world."

The quantity of each class of coal produced in 1900 and 1901 was:—

Class of Coal.	Output of Coal.		Increase.	Approximate total Output of Coal up to the 31st December, 1901.
	1900.	1901.		
	Tons.	Tons.	Tons.	Tons.
Bituminous and semi-bituminous	673,862	754,953	81,091	8,701,777
Pitch	37,804	14,584	23,220*	1,812,711
Brown	339,786	405,152	65,366	4,724,099
Lignite	42,538	52,949	10,411	541,921
Totals	1,093,990	1,227,638	133,648	15,780,508

* Decrease.

It has been computed that to deliver coal at the pit-mouth costs in labour 6s. a ton. The number of persons employed in all the coal-mines last year was 2,754, and the output of coal, 1,227,638 tons: the average earning for each person would thus be £133 14s. 7d. per annum, or about £2 11s. 5d. per week.

State Coal-mines.

In 1901 an Act was passed by the General Assembly authorising the acquisition and working of coal-mines for the benefit of the State. It is intended to use the coal so obtained for State requirements in the first place, but, should the supply exceed what is needed for this purpose, it will be lawful for the State to sell and deliver coal and other products in the same manner as a private mine-owner.

Investigations have been made in various parts of the West Coast coal-fields to determine suitable sites. Two have been selected: one in the Westport district, and the other in the locality of Greymouth.

At the former, some prospecting has recently been carried out under the direction of the Inspecting Engineer for Mines, and a seam of valuable coal, averaging over 14 ft. in thickness, has been proved over a considerable area. To win this coal no sinking of shafts will be required, but a large adit tunnel has been started in the side of a range of hills. The coal will be conveyed from the inner end of this tunnel to the bins adjoining the Seddonville Railway-station by an endless rope tramway capable of dealing with 500 tons in eight hours when working at its normal speed.

Beyond some preliminary surveys and prospecting, no active work has yet been done at the latter place; but it is expected that operations will shortly be commenced to develop the property on a comprehensive scale.

OIL SHALE.

The mine and works of the New Zealand Coal and Oil Company (Limited), at Orepuki, have reached a productive stage. During 1901 the mine produced 10,662 tons of coal and 12,048 tons of shale. The works are fitted up with retorts, stills, purifiers, extractors, &c., for the manufacture of various grades of burning and lubricating oils, paraffin wax, sulphate of ammonia, &c.

OTHER METALS OR MINERALS.

Very little has been done in the colony to prospect and develop mines other than for gold and silver. The only exports last year of metalliferous products, excluding gold and silver, were 208 tons of manganese-ore, 143 tons of sulphur, and small parcels of other minerals, representing an aggregate value of £8,630.

KAURI-GUM.

The quantity of kauri-gum exported last year was 7,541 tons, as against 10,159 tons for 1900. Last year's produce (£446,114) gave an average value of about £59 3s. 2d. per ton, while for 1900 the average was £61 5s. 2d. per ton.

SECTION XXI.—ACCUMULATION: PRICES AND WAGES.

Banks of Issue.

In December, 1901, five banks of issue were doing business in New Zealand, the Bank of New Zealand and the Colonial Bank having amalgamated in 1895. Two of the five banks, the Bank of New Zealand and the National Bank of New Zealand (Limited), were wholly New Zealand institutions, with a paid-up capital of £750,000, besides which the Bank of New Zealand has £2,000,000 of 4 per cent. stock guaranteed by the Government of the colony. The total average liabilities of all five banks for the year 1901 in respect of New Zealand transactions were £17,490,035, and the average assets £18,422,274. The average amount on deposit during the year was £16,034,848, of which sum £812,730 belonged to the General Government. Excluding those belonging to Government, deposits to the value of £8,227,795 were bearing interest, and £6,994,323 at call. The value of the notes in circulation of these banks was £1,361,355.

The development of banking in New Zealand since the year 1857 has been very great. Taking for each year the average of the four quarters' returns made by the banks of issue, the figures for 1857, 1870, 1880, 1890, 1900, and 1901 are :—

Year.	Deposits.	Assets.	Liabilities.
	£	£	£
1857	343,316	419,860	432,494
1870	3,127,769	6,315,354	3,819,670
1880	8,538,935	14,220,275	9,550,177
1890	12,368,610	17,735,259	13,356,598
1900	15,570,610	17,314,535	16,964,582
1901	16,034,848	18,422,274	17,490,035

In 1880 the deposits of these banks were £18·00 per head of the mean population. In 1890 they were £19·92 per head; and in 1901, £20·61. The ratio of advances to deposits, which was 132·34 per cent. in 1880, reached its maximum in 1883, when it stood at 173·35 per cent. The proportion since that year fell, till in 1897 it was only 76·21 per cent. In 1898, however, the ratio had advanced to 80·52 per cent., and in 1899 still further, to 80·92 per cent. In 1900 there was again a decline to 77·61 per cent., but in 1901 a substantial advance to 81·74 per cent. is shown, the highest proportion since 1895.

The following figures, which are taken from the published returns for the December quarter of each year, show that the value of the coin and bullion held by all the banks of issue doing business in New Zealand rose steadily from 1891 to 1895, in which year the value stood at £3,333,272. Since that date the value gradually decreased year by year to £2,636,177 in December quarter, 1899, but rose again to £2,802,232 in December, 1900, and further to £3,063,843 in December, 1901 :—

Quarter ended 31st December.	Coin.	Gold and Silver in Bullion or Bars.	Total Coin and Bullion.
	£	£	£
1890	2,421,530	169,659	2,591,189
1891	2,231,242	126,346	2,357,588
1892	2,381,319	141,406	2,522,725
1893	2,480,453	121,496	2,601,949
1894	3,103,355	118,121	3,221,476
1895	3,199,889	133,383	3,333,272
1896	3,171,702	122,901	3,294,603
1897	2,848,183	107,635	2,955,818
1898	2,625,896	126,349	2,752,245
1899	2,511,102	125,075	2,636,177
1900	2,658,207	144,025	2,802,232
1901	2,921,268	142,575	3,063,843

The figures shown for each quarter of the year 1901 are :—

	Coin.	Bullion.
	£	£
March quarter, 1901	2,752,208	133,162
June "	2,865,443	140,709
September "	2,887,680	142,335
December "	2,921,268	142,575

In 1886 the average amount of advances made by the banks was £15,853,420, equal to £27·23 per head of the mean population. The advances gradually declined in amount and proportion to population until 1891, when they were in value £11,549,145, or £18·34 per head. During the years 1892 and 1893, however, there was a rise, but in 1894 a fall to £12,031,537 (£17·71 per head), and in 1897 to £10,892,111, or £15·09 per head, which is the lowest average since the year 1872. In 1898 an increase both in the average amount of advances and in the rate per head of population (£11,387,321 and £15·47 respectively) was observed ; in 1899 there was a further increase to £11,806,859, or £15·74 per head ; in 1900 to £12.084,744, or £15·83 per head ; and in 1901 to £13,106,909, or £16·85 per head. The discounts in 1901 amounted to £1,896,869, or £2·44 per head of mean population. The largest amount of discounts in any year was £6,061,959 in 1879, a rate of £13·53 per head. From 1879 there was a fall year by year until 1896, when

the sum was £1,756,791, or £2·49 per head. In 1897 they totalled £1,768,845, but, with a comparatively larger population, the rate per head was only £2·45. In 1898 the amount fell to £1,719,715, and the rate per head to £2·34. In 1899 there was a further decline in the amount to £1,692,201, and in the rate per head to £2·26; but in 1900 a rise to £1,730,809, or £2·27 per head, and in 1901 to £1,896,869, the rate being £2·44 per head.

The deposits, as stated in the returns for the March quarters of the years 1902 and 1901, were:—

	£
Deposits not bearing interest, March quarter, 1902	7,087,161
" " " March quarter, 1901	6,929,370
An increase of	£157,791

in the amount held at call. The fixed deposits show a similar movement, but of lesser magnitude:—

	£
Deposits bearing interest, March quarter, 1902 ..	8,318,439
" " March quarter, 1901 ..	8,196,351
An increase of	£122,088

Besides the above, the Government had with the Bank of New Zealand £1,255,294 on deposit in March, 1902, as against £770,504 in March, 1901.

Special Banking Legislation.

An Act was passed in 1893 intituled "The Banks and Bankers Act Amendment Act," under which, notwithstanding anything in previous legislation, the shareholders or proprietors of any bank may, from time to time, by extraordinary resolution, authorise its capital to be increased to such an amount and upon such terms as are deemed by them to be expedient. The holders of shares in such increased capital may be granted special privileges notwithstanding anything contained in the charter of the bank.

Any increased capital may be raised by the issue of new shares of such amount as is determined on by extraordinary resolution of the shareholders or proprietors.

The Bank-note Issue Act of the same year provides that notes issued or circulated in the colony by any bank shall, to the amount of the authorised issue, be a first charge on all the assets and property (including the paid-up capital, uncalled capital, and reserve fund—"Banking Act, 1894") of such bank, and that the notes shall be payable in gold only at the office of the bank at the place of issue of the said notes.

The assets and property of a bank are defined as assets for the payment of debts or other obligations contracted or entered upon or due and payable in the colony.

The other clauses (Part II.) of the same Act were originally passed for twelve months only, but their operation was extended in 1894 for another twelve months —viz., till September, 1895. As amended by subsequent enactments, they run as follows: The Governor may declare by Proclamation the notes of any bank named to be a legal tender of money to the amount therein expressed to be payable. The period of time is to be limited by the Proclamation, and no such Proclamation is to be made unless the Governor in Council is satisfied that, as between the bank and its creditors, its assets in the colony exceed its liabilities in the colony. The bank must further pay all such notes in gold on presentation, after expiry of the time limited, at the office of the bank at the place of issue

At any time within six months after the period limited by the Proclamation, the Colonial Treasurer, on being satisfied that a bank-note covered by the Proclamation has been presented and not paid, shall pay the same in gold to any *bonâ fide* holder.

On the 29th June, 1894, the Colonial Treasurer introduced in the House of Representatives three Bills relating to banking, which were thereupon passed through all stages and became law forthwith.

The most important of these, intituled "An Act to guarantee out of the Consolidated Fund a Special Issue of Shares by the Bank of New Zealand to the Amount of Two Million Pounds Sterling," provided for the increase of the capital by the issue of shares* to an amount not exceeding two million pounds sterling, in guaranteed shares of ten pounds each, without further liability. These shares are preferential in respect of both capital and dividend, and the liability of the holders of ordinary shares is to secure payment of the guaranteed shares and the dividends thereon. The directors can refuse to register the transfer of ordinary shares. The guaranteed shares are to be called in at the end of ten years, and cancelled on payment of the principal sum with accrued dividend. The rate of dividend on preferential shares is not to exceed 4 per cent. per annum, and is to be paid by the bank. The guaranteed or preferential shares and dividends thereon are to be a charge upon and, in case of default by the bank, payable out of the Consolidated Fund of the colony; but if at any time any money shall be payable under the guarantee, the assets and property of the bank are to be security for the repayment of money so advanced; if the money be not repaid, the Colonial Treasurer may appoint a Receiver.

One-half of the sum of two million pounds authorised by the Act to be raised is to be at the disposal of the bank for use in its ordinary business, and the remainder is to be invested as the Colonial Treasurer may approve, or as may be specially provided by law. Until the guaranteed shares are called in and cancelled, no dividend is to be paid to ordinary shareholders without the consent of the Colonial Treasurer, who is empowered to satisfy himself that any proposed dividend will not unduly affect the security of the colony in respect of the guarantee.

By section 5 of the Act, the Colonial Treasurer might require the directors to call up £500,000, being one-third of the reserve capital, within twelve months, and this has accordingly been done.

As provided by the Act, the head office of the bank was removed to Wellington, and a new Board of directors elected. The Governor in Council appointed a President (*office since abolished under Act of 1898, see* post), and an Auditor of the business outside the United Kingdom. An Auditor of the business within the United Kingdom was appointed by the Agent-General.

The shares held in the Bank of New Zealand Estates Company (Limited) by the bank are, pending the completion of liquidation, to be treated in valuing as at par.

"The Bank Shareholders Act, 1894," provided that the directors of any bank may decline to register any transfer of shares upon which there is any liability made by a shareholder to any person of whose responsibility they may not be satisfied. "The Bank Directors and Shares Transfer Act, 1894," gave authority to directors to refuse approval, without assigning reasons, to any transfer of shares on which there is liability. It limited the number of directors to not less than five or more than seven. (See subsequent legislation in 1898 as to directory.)

* By further Amendment Act these shares were to be issued in the form of negotiable stock certificates or warrants to bearer, of such amounts as the directors may determine. The certificates with warrants or coupons are transferable by delivery. The holders of stock certificates or warrants may exchange these for registered stock, which is made transferable in such amounts as directors may sanction. Shares or stock may be held by any person without limit as to number, provided that the total value does not exceed two millions sterling.

"The Bank of New Zealand and Banking Act, 1895," and its Amendment Act.

This Act was passed on the 4th of September, 1895. It provided for writing off the paid-up capital of the Bank of New Zealand (£900,000), together with the proceeds (estimated at £450,000) of the first call of £3 6s. 8d. on the reserve liability of £10 per share.

A sum of £500,000 new capital was raised by preferred shares, and issued to the colony in exchange for Government securities. The preferred shares bore interest at 3½ per cent. The bank was given the right to repurchase at par within six years (since taken advantage of). Further share capital was created by a second call of one-third of the reserve liability (£3 6s. 8d. per share) in four instalments, the final third to be called up at any time after the 31st December, 1898. The sum of one million pounds, required by the Share Guarantee Act of 1894 to be invested as the Colonial Treasurer might approve, was released for employment by the bank in its ordinary business. It was provided that one of the directors of the bank was to be appointed by the Governor, and one of the then directors to resign to make way for the Government appointee. (See subsequent legislation in 1898 as to directory.)

An Assets Realisation Board is established to purchase all the assets of the Estates Company, and of the Auckland Agricultural Company, for the sum of £2,731,706, being the estimated value of the properties on the 31st of March, 1895, subject, however, to an adjustment of station accounts, the purchase-money to be paid in debentures issued by the Assets Board, having a nine years' currency and bearing interest at 3½ per cent. per annum from the 31st March, 1895, any deficiency to be guaranteed by the Government as a charge upon the Consolidated Fund of the colony.

Provision is made for securing the Government against loss on account of this guarantee, and the Colonial Treasurer may, in the event of any deficiency, appoint a Receiver in respect of the securities with the powers of a liquidator appointed by the Supreme Court. The Assets Realisation Board is a body corporate, consisting of three members, two appointed by the Governor and one chosen by the directors of the bank.

Section 8 of "The Banking Act, 1894," is repealed, and power is given to the Bank of New Zealand to purchase the business and assets of any other bank doing business in the colony, excepting such assets as are found to be bad, doubtful, or valueless. Any such purchase is conditional on ratification by the shareholders of the selling bank and the approval of Parliament. [*The business of the Colonial Bank of New Zealand has since been purchased under the authority given, the contract being approved under the Amendment Act of 1895, section 3, and subsequently ratified by the shareholders of the selling bank.*]

So long as the colony remains in any measure liable under the Act, or the Share Guarantee Act of 1894, the proprietors of the bank may not take any steps towards winding up or dissolving the bank.

The Assets Board are to draw up a balance-sheet every six months, and lay the same before Parliament.

"The Bank of New Zealand and Banking Act, 1898."

Consequent on the report of a Committee of the House of Representatives appointed to make inquiries respecting the affairs of the Bank of New Zealand, a statute was passed in 1898 bearing the above title.

It provides for a Board of Directors consisting of six persons, instead of five, of whom four are appointed by the Governor in Council and two elected by the shareholders of the bank.

The office of President is abolished, with its power of veto; while the old constitution of the Board, under which the President and one director only were appointed by the Governor in Council, and three by the shareholders gives way to the new one.

Of the four members in the new Board who are appointed by the Governor in Council, two retired on the 31st March, 1901, the retiring directors being decided by lot amongst the four. On the 31st March yearly, the two members who have been longest in office retire. The ordinary time of office of the four members is thus two years.

The two directors elected by the shareholders of the bank hold office for an ordinary term of two years.

On the 31st March yearly the member who has been longest in office retires.

Provision was made for offering the retiring President of the old Board a sum of £4,500 by way of compensation, leaving it open to him to decline, with power of instituting proceedings to recover damages for wrongful removal from office.

The remuneration of the new Chairman and directors is £2,000 per annum, which they divide amongst themselves, in shares fixed by resolution of the Board.

There are sundry provisions as to the voting at meetings, and a carefully limited power of veto in respect of resolutions passed by shareholders, under certain circumstances, is given.

Amongst other various matters provided for, it may be mentioned that the Governor in Council may appoint an Assistant Auditor. The Chief Auditor is given the right to attend meetings of the Board, and empowered to suspend the operation of any act or proceedings until the Board has had an opportunity of considering the same at a future meeting.

SAVINGS BANKS.

The number of post-offices open for the transaction of savings-bank business at the end of 1901 was 466.

There were 50,046 new accounts opened in the year, and 35,018 accounts were closed. The total number of open accounts at the end of 1901 was 212,436.

The deposits received during the year amounted to £4,611,456 6s. 1d., and the withdrawals to £4,230,193 6s. 2d., the excess of deposits over withdrawals having thus been £381,262 19s. 11d. The total sum standing at credit of all accounts on the 31st December, 1901, was £6,350,013 9s. 2d., which gave an average of £29 17s. 10d. to the credit of each open account.

The following were the securities, &c., standing in the name of the Postmaster-General on account of the Post-Office Savings-Bank Fund on the 31st December, 1901:—

Description of Securities.	Nominal Value.			Value at Cost Price.		
	£	s.	d.	£	s.	d.
"Aid to Public Works and Land Settlement Act, 1896," Debentures at 3½ per cent. ..	350,000	0	0	350,000	0	0
"Aid to Public Works and Land Settlement Act, 1899," Debentures at 3½ per cent. ..	125,000	0	0	125,000	0	0
"Aid to Public Works and Land Settlement Act, 1896-97," Debentures at 3 per cent. ..	65,000	0	0	65,000	0	0
"Consolidated Loan Act, 1867," Debentures, 4 per cent.	13,000	0	0	12,480	0	0
"Consolidated Stock Act, 1884," Debentures, 3½ per cent.	571,600	0	0	571,600	0	0

Description of Securities.	Nominal Value.			Value at Cost Price.		
	£	s.	d.	£	s.	d.
"Dairy Industry Act, 1898," Debentures, 3½ per cent.	1,781	0	0	1,781	0	0
"Defence and other Purposes Loan Act, 1870," Debentures, 4 per cent.	75,000	0	0	72,000	0	0
"Defence and other Purposes Loan Act, 1870," Debentures, 4½ per cent.	8,100	0	0	8,100	0	0
District Railways Purchasing Acts, 1885 and 1886, Debentures, 4 per cent.	42,000	0	0	36,076	17	8
District Railways Purchasing Acts, 1885 and 1886, Scrip, 4 per cent.	34,100	0	0	34,100	0	0
Dunedin Garrison Hall Debentures, 5 per cent.	6,000	0	0	6,000	0	0
"General Purposes Loan Act, 1873," Debentures, 4 per cent.	5,200	0	0	4,342	0	0
"Government Loans to Local Bodies Act, 1886," Debentures, 3½ per cent.	231,500	0	0	231,500	0	0
Greymouth Harbour Board Debentures, 4 per cent.	100,000	0	0	100,000	0	0
Hamilton Borough Debentures, 5½ per cent.	3,000	0	0	3,000	0	0
Hokitika Harbour Board Debentures, 5 per cent.	10,000	0	0	10,000	0	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4 per cent.	174,200	0	0	167,272	0	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4½ per cent.	20,900	0	0	20,527	10	0
"Immigration and Public Works Loan Act, 1870," Debentures, 4 per cent. (Imperial guaranteed)	400,000	0	0	400,000	0	0
Inscribed Stock, 3 per cent.	1,884,940	0	0	1,879,614	0	0
"Land for Settlements Act, 1894," Debentures, 3½ per cent.	731,066	0	0	731,066	0	0
Land for Settlements Act Debentures, 3½ per cent.	62,000	0	0	62,000	0	0
"Lands Improvement and Native Lands Acquisition Act, 1894," Debentures, 4 per cent.	264,000	0	0	264,000	0	0
"Lands Improvement and Native Lands Acquisition Act, 1894," Debentures, 3½ per cent	35,000	0	0	35,000	0	0
Oamaru Borough Consolidated Loan 1893 Debentures, 5 per cent.	13,800	0	0	13,800	0	0
Oamaru Harbour Bonds, 5½ per cent.	31,000	0	0	31,000	0	0
Patea Harbour Board Debentures, 4½ per cent.	13,000	0	0	13,000	0	0
Thames Harbour Board Debentures, 4 per cent.	10,000	0	0	10,000	0	0
"Public Revenues Act, 1893" (Treasury Bills), 3½ per cent.	629,200	0	0	629,200	0	0
Westport Harbour Board Debentures, 4 per cent.	474,500	0	0	474,500	0	0
Totals	6,384,887	0	0	6,361,959	7	8

There are five savings-banks in the colony not connected with the Post Office. The total amount deposited in them in 1901 was £670,602 19s. 4d., of which the deposits by Maoris comprised £82 2s. 10d. The withdrawals reached the sum of £630,672 12s. 6d., or less than the total deposits by £39,930 6s. 10d.

The total amount to the credit of the depositors at the end of the year was £918,089 10s. 1d., of which sum £118 5s. 4d. belonged to Maoris.

Summary of all Deposits.

If the total deposits at the end of the year be assumed to be equal to the average for the last quarter, then it may be affirmed that, exclusive of Government moneys, the deposits in the several banks of issue and in the two classes of savings-banks amounted at the end of 1901 to £22,490,221. In addition, there are the deposits with building societies, which in 1900 were £249,530, and it is known that there were also deposits with financial companies, of which no particulars have been supplied to the department. The known deposits reach an average of £28 17s. 5d. per head of the population, exclusive of Maoris.

Building Societies.

There were 68 registered building societies in operation in the colony at the end of 1900. Of these, 33 were terminable societies, the rest were permanent.

The total receipts by these societies during their financial year were £659,367, of which deposits comprised £237,542.

The assets at the end of the year were valued at £1,137,642. The liabilities were: To shareholders, reserve fund, &c., £864,860; to depositors, £249,530; and to bankers and other creditors, £23,252.

Joint-stock Companies.

During the year ended 31st December, 1901, 160 joint-stock companies, with a total nominal capital of £2,019,253, were registered under the provisions of "The Companies Act, 1882."

Friendly Societies.

The Registrar of Friendly Societies received returns for the year 1900 from 443 lodges, courts, tents, &c., of various friendly societies throughout the colony. The number of members at the end of 1900 was 40,257.

The total value of the assets of these societies was £766,480, equivalent to £19 0s. 10d. per member. Of the total assets, the value of the sick and funeral benefit funds was £708,862.

The receipts during the year on account of the sick and funeral funds amounted to £89,236, and the expenditure to £63,465, of which the sick-pay to members reached the sum of £41,168. In addition to the sick-pay, the sum of £36,912 was paid out of the medical and management expenses fund for attendance given and medicine supplied to the members and their families.

The Registrar of Friendly Societies has supplied particulars of the number of members of friendly societies, the amount of their

accumulated capital, and the average capital per member in Australasia, according to the latest published statistics, arranged in order of membership:—

State or Colony.	Date of Return.	Number of Lodges.	Number of Members.	Amount of Funds.	Capital per Member.
				£	£ s. d.
Victoria	31st Dec., 1900	1,111	97,937	1,316,370	13 8 10
New South Wales ..	" 1897	817	69,124	596,463	8 12 7
South Australia ..	" 1895	487	42,703	475,654	11 2 9
New Zealand ..	" 1900	443	40,257	766,480	19 0 10
Queensland ..	" 1900	357	30,726	245,937	8 0 1
Tasmania	" 1899	117	12,883	100,562	7 16 1
Western Australia ..	" 1900	108	6,890	46,306	6 14 5

New Zealand shows by far the highest average of capital per member, Victoria following next, but not closely. The South Australian average is not quite two-thirds, and those of New South Wales, Queensland, Western Australia, and Tasmania less than half the sum shown for this colony.

Mortgages.

In a return to an order of the House of Representatives it is stated that, during the year ended 31st March, 1901, mortgages to the value of £7,431,698 were registered in the several land registration districts of the colony, while the monetary value of those paid off amounted to £5,082,617. Compared with a similar return for the year 1899–1900, the mortgages registered show a decrease of £3,065, the total amount for the earlier year having been £7,434,763.

The total amounts represented in the mortgages registered and paid off in each registration district during 1899–1900 and 1900–1901 were:—

District.	1900–1901. Mortgages Registered.	1900–1901. Mortgages Paid off.	1899–1900. Mortgages Registered.	1899–1900. Mortgages Paid-off.
	£	£	£	£
Auckland ..	663,121	507,886	765,350	878,135
Poverty Bay ..	214,394	169,279	225,723	115,999
Taranaki ..	872,111	498,149	639,641	377,032
Hawke's Bay..	685,395	494,564	847,895	763,517
Wellington ..	2,108,812	1,257,352	2,077,446	1,198,238
Marlborough ..	132,106	140,648	102,209	129,666
Nelson ..	183,022	127,172	152,278	138,849
Westland ..	25,821	14,305	20,535	9,142
Canterbury ..	1,424,780	1,057,458	1,714,800	1,373,906
Otago ..	569,442	552,289	517,110	484,507
Southland ..	552,694	263,115	371,776	254,117
Totals ..	£7,431,698	£5,082,617	£7,434,763	£5,723,108

Classified according to the various rates of interest, the amounts in the mortgage deeds registered during the two years were :—

Year 1899-1900.		1900-1901.		Rate of Interest.
		£		
101,391	..	78,319	..	at 4 per cent or under.
1,731,654 (*a*)	..	1,652,410 (*f*)	..	at 4½ per cent.
171,133	..	80,310 (*g*)	..	at 4⅝ per cent.
2,298,723	..	2,242,362	..	at 5 per cent.
355,541 (*b*)	..	441,098 (*h*)	..	at 5½ per cent.
698,147 (*c*)	..	675,772 (*i*)	..	at 6 per cent.
5,190	..	4,071 (*j*)	..	at 6¼ per cent.
15,800	..	135,793	..	at 6½ per cent.
5,900	..	100	..	at 6¾ per cent.
361,157 (*d*)	..	244,248 (*k*)	..	at 7 per cent.
31,344 (*e*)	..	22,619 (*l*)	..	at 7½ per cent.
158,536	..	188,102 (*m*)	..	at 8 per cent.
89,216	..	66,142	..	at 8½ per cent. and over.
1,411,031	..	1,600,352	..	at rates not specified.
£7,434,763		£7,431,698		

(*a.*) Including £4,000 at 4⅜ per cent., and £4,500 at 4¼ per cent. (*b.*) Including £2,050 at 5⅛ per cent., and £24,180 at 5¼ per cent. (*c.*) Including £2,693 at 5⅜ per cent. (*d.*) Including £144,892 at 6⅜ per cent. (*e.*) Including £700 at 7¼ per cent. (*f.*) Including £700 at 4¼ per cent. (*g.*) Including £22,000 at 4⅜ per cent. (*h.*) Including £19,520 at 5¼, and £300 at 5⅛ per cent. (*i.*) Including £5,300 at 5¾ per cent. (*j.*) Including £2,360 at 6⅓ per cent. (*k.*) Including £100 at 7¼ per cent. (*l.*) Including £200 at 7⅜ per cent. (*m.*) Including £30 at 8¼ per cent.

Comparison of the foregoing with the amounts at the various rates of interest in the mortgages registered during 1895–96 shows the lowering of the rates that has taken place :—

Year 1895-96.		
£		
26,285	..	.. in small sums at less than 5 per cent.
833,226	..	.. at from 5 per cent. to 5¼ per cent.
732,764	..	.. at 5¼ per cent.
116,600	..	.. at 5⅜ per cent.
1,372,261	..	.. at from 6 per cent. to 6¼ per cent.
371,896	..	.. at from 6½ per cent. to 6¾ per cent.
599,542	..	.. at from 7 per cent. to 7¼ per cent.
111,651	..	.. at 7½ per cent.
382,348	..	.. at 8 per cent.
173,416	..	.. in small sums, at rates above 8 per cent.
853,801	..	.. at rates which are not specified.
£5,573,790		

The total amount shown in deeds as secured by mortgage under the Land Transfer Act on 31st March, 1901, was £37,767,650, as against £35,303,728 in March, 1900, £33,035,337 in March, 1899, £32,152,288 in March, 1898, and £31,112,921 in March, 1897; but in respect of some transactions the same money may be included more than once.

Life Insurance.

There were existing in the colony at the close of the year 1900 as many as 89,849 life insurance policies, an average of 117 in every 1,000 persons living. The gross amount represented by these policies was £22,629,255, an average of £251 17s. 2d. for each policy, and of £29 7s. 3d. for every European inhabitant of the colony at the end of the year.

The distribution of these policies shows that nearly one-half are held in the Government Life Insurance Department:—

Name of Office.	Number of Years of Business in the Colony.	New Zealand Business only.	
		Number of existing Policies at End of Year 1900.	Gross Amount insured by Policies at End of Year 1900.
			£
Australian Mutual Provident Society	39	26,996	7,428,138
Australian Widows' Fund Life Assurance Society (Limited) ..	3	1,156	310,973
Citizens' Life Assurance Company (Limited)	7	3,093	472,191
Colonial Mutual Life Assurance Society (Limited)	17	4,546	1,200,368
Equitable Life Assurance Society of the United States	16	831	322,721
Mutual Life Association of Australasia	24	5,231	1,375,006
National Mutual Life Association of Australasia (Limited)	21	7,489	1,769,470
New York Life Insurance Company ..	14	139	53,352
Life Insurance Department of the New Zealand Government ..	31	40,368	9,697,036
Totals, December, 1900 ..	..	89,849	£22,629,255
Totals, December, 1899	..	85,540	£21,762,155

The rate at which life insurance increased is evidenced by the difference between the amounts insured at the end of each of the two years 1899 and 1900, being a sum of £867,100, or 3·98 per cent., while for the same twelve months the population increased by 1·87 per cent. only.

Industrial Life Assurance.

In addition to the ordinary life insurance transactions alluded to above, there were in 1900 two industrial life assurance offices doing business in New Zealand. The number of policies in existence and the gross amount insured by such policies at the end of the year were:—

Name of Office.	Number of Years of Business in the Colony.	New Zealand Business only.	
		Number of existing Policies at End of Year 1900.	Gross Amount insured by Policies at End of Year 1900.
			£
The Citizens' Life Assurance Company (Limited)	7	16,658	376,806
The Provident and Industrial Insurance Company of New Zealand ..	11	7,904	167,310
Totals, December, 1900 ..	..	24,562	£544,116
Totals, December, 1899 ..	..	21,066	£479,876

Here an increase of £64,240, or 13·39 per cent., is shown to have taken place in twelve months.

"THE NEW ZEALAND ACCIDENT INSURANCE ACT, 1899."

By this statute the Commissioner of Life Insurance is given power to insure persons from accident, and specially employers against liability for accident to any person employed, besides generally doing the business of an insurer against accident.

The Act provides for capital for the accident insurance business by empowering the Governor in Council to raise by debentures or scrip, or by issue of inscribed stock, sums of money not exceeding £25,000 altogether. To redeem at maturity the securities issued in respect of capital raised there are provisions for a sinking fund.

The funds, assets, and liabilities of the Government Life Insurance Department belonging to its accident insurance branch are to be kept separately and distinct from the main life insurance business, and powers are vested in the Governor to make regulations in regard to tables fixing rates of premiums, and other details, for the conduct of accident insurance.

THE PUBLIC TRUST OFFICE.

This institution was described in full detail in the Year-book for 1898, page 454.

Classifying the business as on the 31st March, 1901 and 1902, the results are :—

	1901.		1902.	
	Number of Estates.	Value of Estates. £	Number of Estates.	Value of Estates. £
Wills and trusts (including sinking funds accounts)	684	1,022,838	651	1,122,404
Intestate estates	867	134,820	923	163,304
Real estates	69	7,459	69	7,317
Lunatic estates	626	159,087	728	163,306
Native reserves	110	363,076	143	366,000
West Coast Settlement Reserves ..	293	622,604	309	625,000
Unclaimed lands	249	17,070	226	20,283
Total	2,898	£2,326,954	3,049	£2,467,614

The capital funds of the Public Trust Office invested amounted, on the 31st March, 1902, to £1,723,451. The investments are as follow:—

	£
New Zealand Government securities	578,323
Local bodies' debentures	28,129
Mortgages of freehold property	1,116,999
Total	£1,723,451

Duties on Estates of Deceased Persons.

By the Amendment Act of 1885 the Schedule of Duties payable under the principal Act of 1881 has been repealed, and the following imposed in lieu thereof:—

1. When the value does not exceed £100	No duty.
2. Upon any amount exceeding £100 but not exceeding £1,000—	
On the first £100	No duty.
And on the remainder	£2½ per cent.
3. Upon any amount exceeding £1,000 but not exceeding £5,000	£3½ per cent.
4. Upon any amount exceeding £5,000, but not exceeding £20,000	£7 per cent.
Upon £20,000 and any amount over that sum	£10 per cent.
Strangers in blood, excepting adopted children	£3 per cent. additional.

These duties are leviable upon the final balance of the real and personal estates.

The exemption in respect of property passing absolutely to widow at death of husband is now extended *vice versâ*.

There are also special provisions in the law affecting children, grandchildren, step-children, and adopted children inheriting property.

The above duties also apply to deeds of gift.

Private Wealth.

The number and value of estates of deceased persons finally certified, on which duty was paid during the years 1899, 1900, and 1901 are shown, classified according to amount:—

Value of Estates.	1899.		1900.		1901.	
	Number of Estates.	Aggregate Value on which Duty was Paid.	Number of Estates.	Aggregate Value on which Duty was Paid.	Number of Estates.	Aggregate Value on which Duty was Paid.
£ £		£		£		£
Under 500 ..	794	150,091	752	146,105	856	158,551
500 to 1,000 ..	224	161,220	224	158,392	225	163,186
1,000 „ 2,000 ..	126	180,909	172	246,012	159	232,961
2,000 „ 3,000 ..	57	133,204	66	161,724	54	130,069
3,000 „ 4,000 ..	30	105,077	37	129,079	33	113,269
4,000 „ 5,000 ..	18	81,967	26	115,295	29	125,701
5,000 „ 7,500 ..	34	209,185	20	121,080	30	181,849
7,500 „ 10,000 ..	13	110,765	16	139,792	29	248,644
10,000 „ 15,000 ..	10	126,661	13	156,649	18	227,423
15,000 „ 20,000 ..	9	155,058	4	69,350	10	167,620
20,000 and over ..	12	601,338	15	517,472	14	603,425
Totals ..	1,327	2,020,475	1,345	1,960,950	1,457	2,352,698

The number of estates admitted to probate, and the number of adult deaths in each year, 1897 to 1901, are given, and it will be seen that 28 out of every 100 adults who died during the year 1901 left property subject to estate duty.

Year.	Number of Estates.	Number of Adult Deaths.	Proportion per Cent. of Adults who died leaving Property on which Duty paid.
1897	1,128	4,258	26·49
1898	1,287	4,696	27·41
1899	1,327	4,719	28·12
1900	1,345	4,683	28·72
1901	1,457	5,134	28 38

The private wealth of the colony has been estimated on the basis of the probate returns, the calculation being made on the principle that the wealth of the living is proportionally equal to that left by the dead. Dividing the aggregate amount admitted to probate during a series of years by the number of *deaths* occurring within the same period, the average value of property left by each person dying is obtained. On the assumption that the average wealth owned by each person living is equal to that left by each person dying, the total aggregate private wealth may readily be found. For a calculation of this kind it is necessary to take the average results for a series of years, as any inference drawn from the figures of a single year would be untrustworthy; for an increase in the death-rate must necessarily give a corresponding decrease in the estimated wealth, unless the value of estates admitted to probate maintains year by year the same ratio to the number of deaths. An epidemic among young children who have no property to leave would unduly lower the average; while, on the other hand, the deaths of a few wealthy persons would raise it abnormally. By putting the figures for several years together, and taking the average for the term, results may be arrived at, thus :—

Years, inclusive.	Amount sworn to.	Total Number of Deaths.	Average Amount left by each Person.	Average Number of Persons living.	Average Total Wealth for each Year of the Period.
	£		£ s. d.		£
1897–1901	10,596,251	36,353	291 9 8	749,883	218,577,472

It is manifest, however, that this average does not exhibit with sufficient accuracy the actual *present* amount of wealth. If the average amount per head were the same at the end of the year 1901 as for the period 1897–1901—viz., £291·482—then the total wealth possessed by the 787,657 persons in the colony on the 31st December of that year would be £229,587,916.

These figures, however, fall short of the full amount of private wealth, as the values sworn to do not include those estates on which no stamp duty is payable—viz., land and goods passing to

the husband or wife of the deceased, and a great number of properties under £100. The aggregate value of such estates must be considerable, and should give a substantial increase to the average amount per head, and therefore to the total wealth. But, on the other hand, only 32 per cent. of the deaths in 1901 were of persons under twenty years of age, and the census of 1901 showed that 44 per cent. of the population living at that time were under twenty: so that, in assuming the average wealth per head of the living to be the same as the average left by each one dying, the aggregate is somewhat unduly swelled, because, as a rule, persons under twenty have little or no property.

The estimated private wealth for each of ten years is shown by the following figures :—

Year.	Amount. £	Average per Head: £
1892	152,065,087	236
1893	156,058,273	232
1894	154,715,821	225
1895	152,918,021	219
1896	170,007,843	238
1897	183,781,780	252
1898	201,154,323	271
1899	217,587,481	288
1900	228,236,158	296
1901	229,587,916	291

Of the total amount of private wealth given above for 1901—viz., £229,587,916—about £124,000,000 would be the value of real estate privately owned, subtracting which leaves, approximately, £105,000,000 as representing personal property. Although this may appear a high estimate, a very large development in the taxable personal estate during the last ten years is absolutely demonstrated by the returns showing the amounts of income-tax paid, which rose from £67,367 in 1892–93 to £179,397 in 1901–1902.

The Government Statistician of New South Wales estimated the private wealth of Australasia for the year 1899 at £1,079,246,000; and the same authority has returned the private wealth for the State of New South Wales as £370,000,000 sterling for the year 1900.

An attempt to arrive at the value of the public property in the colony led to the following particulars being ascertained :—

PUBLIC PROPERTY.

		£
Public property—*i.e.*, land and improvements not owned by individuals, exclusive of Government railways :—		
Crown lands	£14,079,993	
Local authorities' lands	4,704,442	
Educational lands	2,969,438	
Church and other lands	2,274,051	
		24,027,924
Government railways, open and under construction, 31st March, 1901		18,230,057
Other public works—viz., telegraphs, lighthouses, harbours, and water-supply on goldfields		4,766,511
Total public property		£47,024,492

This amount of £47,024,492, with the sum of £229,587,916 previously shown as the private wealth, estimated from probate returns, gives a total of £276,612,408. If to this be added £7,007,522, the value of Native lands with their improvements, a final total of £283,619,930 is reached.

So much of this sum as represents private wealth may be considered as *net* wealth, because stamp duty is paid after subtracting liabilities on estates. But the debt of the General Government and that of the local bodies (so far as raised abroad) must be deducted. These amounts were, in the year 1901, £44,678,879 and £5,510,800 respectively. Allowing for these, it is found that the colony had in 1901 at least £233,430,251 value of public and private wealth. No doubt there is more, but full information as to public wealth other than property owned by the Government is not procurable.

Earnings and Income.

The amount of the aggregate annual earnings of the people of New Zealand is given in the Year-book of 1897 (p. 283). To arrive at this estimate the method adopted was to allot to each person the probable income earned in respect of the occupation set down against his or her name in the household schedules collected at the census of 12th April, 1896. Exception may no doubt be taken to the plan of basing a calculation on a series of arbitrary assumptions, but there is precedent for such a course. The results of the calculation were given without any guarantee of accuracy, similar figures having been called for in the past. Indeed it is important to make clear that the figures must only be considered as put forward with the greatest diffidence, and rather of necessity than otherwise. They may indeed give a fair idea of the facts, but the responsibility of using them for any particular purpose is not accepted by the Registrar-General.

Wages.

The aggregate of wages paid in the colony for the year 1896, as given in the Year-book of 1897 (p. 284), was arrived at by assigning to each wage-earner the probable annual income each would derive from the profession or occupation followed. As in the case of income, the calculations made were put forward merely by way of an attempt to get as closely as possible to the facts, and because asked for; but no assurance whatever can be given as to the exactness of the conclusions stated, and the Registrar-General does not accept any responsibility in regard to their use.

Cost of Living.

An estimate was made in 1894 of the cost of living in New Zealand, including, besides what was spent on necessaries, the additional outlay on what may be termed luxuries, and on things of occasional necessity. The rate arrived at per head of population was £35 6s. 1d. per annum for that year. Fuller particulars are given in former issues of the Year-book.

The average income per head previously referred to was believed to be from £37 12s. to £44 per annum.

Mr. Mulhall, in his "Dictionary of Statistics," gives the average expenditure per head of population for various countries specified as follows:—

Country.	Average Annual Expenditure per Head. £ s. d.	Country.	Average Annual Expenditure per Head. £ s. d.
United Kingdom ..	29 14 9	Norway	19 0 0
France	23 19 4	Denmark	28 11 5
Germany	20 3 4	Holland	20 17 4
Russia	10 1 11	Belgium	25 8 2
Austria	14 4 9	Switzerland ..	18 0 0
Italy	11 11 0	United States ..	32 16 2
Spain	15 12 6	Canada	23 2 2
Portugal	11 5 6	Australia	33 10 3
Sweden	20 8 4	Argentina ..	27 9 1

The estimate for Australasia, as made in 1894 by Mr. Coghlan, the Government Statistician of New South Wales, was as high as £43 12s. 10d. per head.

Annual Consumption of Food, Stimulants, etc.

The quantities used per head of population in New Zealand of some of the main articles of consumption will be found in the Year-book for 1898. The figures are averages for five years.

Prices and Wages.

The average prices of produce, live-stock, provisions, &c., in each provincial district are given for the year 1901 in tabular form on pages 415 and 416. While the variations for the different districts are such as to render it in most cases inadvisable to show averages for the colony, this has nevertheless been done for the staples of food, *i.e.*, bread, meat, and milk, also for tea and sugar, which may almost be called necessaries. Averages for the colony, taken out for the years 1878, 1888, 1898, and 1901, indicate in some cases a decline in prices with the advance of time. In striking these, prices on the goldfields have not been taken into account:—

		1878.	1888.	1898.	1901.
		s. d.	s. d.	s. d.	s. d.
Bread	per lb.	0 2	0 1¾	0 1½	0 1¼
Beef	per lb.	0 5½	0 3¾	0 3¾	0 4¼
Mutton	per lb.	0 3¾	0 3¼	0 3	0 4
Sugar	per lb.	0 5	0 3¼	0 2¾	0 2¾
Tea	per lb.	2 9	2 3½	1 10	1 9
Butter (fresh) ..	per lb.	1 4	0 9½	0 9¾	0 10
Cheese (colonial) ..	per lb.	0 10	0 6	0 5½	0 6
Milk	per quart.	0 4½	0 3¼	0 3	0 3

Rates of Wages.

The average rates of wages paid in 1901 in each provincial district for agricultural, pastoral, artisan, and servants' labour are given on pages 417 to 420.

AVERAGE PRICES OF PRODUCE, LIVE-STOCK, PROVISIONS, ETC., IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901.

Produce, &c.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
I. AGRICULTURAL PRODUCE.									
Wheat .. .. per bushel (60lb.)	3/ to 4/	3/6 to 3/9	3/ to 3/9	3/3 to 4/	2/8	3/6	3/6 to 4/6	2/8	2/9 to 4/
Barley .. .. per bushel (47lb.)	2/5 to 4/6	2/6 to 3/	2/6 to 3/	2/3 to 3/6	3/	2/	3/	1/10	2/4 to 3/
Oats .. .. per bushel (40lb.)	2/6 to 3/3	2/9 to 3/3	2/ to 3/1	2/3 to 3/	2/6	3/	3/ to 3/3	2/4	2/ to 2/6
Maize .. .. per bushel (56lb.)	2/4 to 3/6	4/ to 4/6	2/ to 3/	3/ to 3/6	3/	3/6	3/6 to 4/6	3/	3/
Bran .. .. per bushel (20lb.)	1/	1/3	1/ to 1/4	10d. to 1/3	1/	1/3	1/ to 1/3	7d.	9d. to 1/3
Hay .. .. per ton ..	£2/10 to £4/10	£2/10 to £4	£3	£3 to £4/10	£2/10	£3	£4/10	£2/10	£3 to £3/10
II. FLOUR AND BREAD.									
Flour, wholesale .. per ton of 2,000lb.	£6/15 to £8	£7/15 to £9	£8 to £9	£7 to £9	£7	£8	£8 to £9	£7	£7/10 to £9/10
Flour, retail .. per bag of 50lb. ..	4/ to 5/	4/6 to 5/	4/6 to 5/6	4/ to 5/	4/6	5/	4/6 to 5/	4/	4/6 to 6/6
Bread .. .. per 4lb. loaf ..	5d. to 6d.	6d.	6d.	6d.	7d.	6d.	6d. to 7d.	5d.	6d. to 7d.
III. LIVE-STOCK AND MEAT.									
Horses, draught .. per head ..	£20 to £40	£25 to £35	£20 to £30	£35 to £40	£30 to £40	£40	£30 to £50	£25 to £40	£30 to £50
Horses, saddle and harness .. per head ..	£10 to £15	£12/10 to £20	£10 to £20	£15 to £22	£15 to £25	£18	£15 to £30	£15 to £30	£15 to £25
Cattle, fat .. per head ..	£6 to £9	110/ to 130/	£6/ to £8	130/ to 170/	£5 to £10	£6	170/ to 220/	£7 to £10	£6/10 to £9
Cattle, milch cows .. per head ..	£5 to £7/10	£5 to £7/10	£5 to £7/10	£5 to £7	£8 to £10	£4	£6/10 to £7	£6 to £9	£5/10 to £7/1
Sheep, fat.. .. per head ..	12/ to 17/6	12/ to 15/	10/ to 14/	9/ to 14/	10/	11/	15/ to £1/2 6	12/6 to 17/6	13/ to £1
Lambs, fat .. per head ..	8/ to 10/	10/ to 10/6	10/ to 12/	10/ to 11/	10/	9/	14/6 to 19/	12/6 to 18/	10/ to 14/
Butchers' meat :—									
Beef .. .. per lb.	3½d. to 6d.	3½d. to 5½d.	4d. to 5d.	4d. to 6d.	3d. to 5d.	4d.	4d. to 6d.	5d.	4d. to 7d.
Mutton .. .. per lb.	3½d. to 6d.	4d.	3½d. to 4d.	3½d. to 5½d.	2½d.	4d.	4d. to 6d.	4d.	4d. to 6d.
Veal .. .. per lb... ..	5d. to 6d.	3½d. to 4d.	5d. to 6d.	3d. to 6d.	5d.	4d.	5d. to 8d.	5d.	4d. to 6d.
Pork .. .. per lb.	4½d. to 6d.	4d. to 6d.	4½d. to 6d.	5d. to 7d.	5d.	4d.	6d. to 7d.	6d.	5d. to 7d.
Lamb .. .. per lb.	5d. to 7d.	4½d.	5d. to 6d.	5½d. to 7d.	3½d.	4d.	6d. to 8d.	6d.	4½d. to 7d.
IV. DAIRY PRODUCE.									
Butter, fresh .. per lb.	11d. to 1/2	10d. to 1/	10d. to 1/	10d. to 1/	1/	8d.	1/	1/	10d. to 1/1
Butter, salt .. per lb.	7d. to 10d.	10d.	8d. to 9d.	7d. to 10d.	9d.	5d.	10d. to 1/	9d.	7½d. to 10d.
Cheese, colonial .. per lb.	5d. to 7d.	7d.	6d. to 8d.	5d. to 7d.	6d.	8d.	7d. to 8d.	6d.	6d. to 8d.
Cheese, imported .. per lb.	7d. to 9d.	1/6	2/ to 2/3	1/ to 1/3	1/	10d.	..	1/8	..
Milk .. .. per quart ..	3d. to 4d.	3d.	3d.	3d. to 4d.	4d.	3d.	4d. to 6d.	3d.	3d. to 6d.

AVERAGE PRICES OF PRODUCE, LIVE-STOCK, PROVISIONS, ETC., IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901—*continued.*

Produce, &c.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
V. FARM-YARD PRODUCE.									
Geese .. .. per pair ..	7/ to 10/	4/8 to 6/6	8/ to 10/	6/ to 7/6	7/6	..	7/6 to 10/	7/6	7/ to 11/
Ducks .. .. per pair ..	3/6 to 5/	3/6 to 5/	4/ to 5/	5/ to 5/6	4/6	4/	5/ to 7/	4/6	4/6 to 6/6
Fowls .. .. per pair ..	2/6 to 4/	3/6 to 4/	2/9 to 3/	2/6 to 4/	2/6	3/	3/6 to 5/	3/9	3/ to 4/
Turkeys .. .. per head ..	4/6 to 7/6	4/6 to 6/	5/ to 7/	5/6 to 7/6	5/	4/	6/ to 8/	8/	7/ to 12/
Bacon .. .. per lb. ..	7d. to 9d.	8d.	8d. to 9d.	7d. to 8d.	8d.	8d.	7½d. to 9d.	6d.	7d. to 8d.
Ham .. .. per lb. ..	8d. to 10d.	10d.	8d. to 10d.	8d. to 10d.	9½d.	9d.	9d. to 10d.	8d.	8d. to 9½d.
Eggs .. .. per doz. ..	10d. to 1/3	1/ to 1/2	8d. to 1/	1/	1/	8d.	1/ to 1/9	9d.	9d. to 1/
VI. GARDEN PRODUCE.									
Potatoes, wholesale .. per ton ..	90/ to 150/	140/ to 160/	60/ to 120/	90/ to 160/	120/	70/	150/ to 200/	45/	50/ to 90/
Potatoes, retail .. per cwt. ..	5/ to 8/6	9/ to 10/	4/ to 8/	6/ to 10/	8/	4/	8/ to 12/	2/9	3/ to 7/
Onions .. .. per lb. ..	1½d. to 2d.	2½d. to 3d.	1d. to 3d.	1d. to 3d.	1½d.	1½d.	1½d. to 3d.	1½d.	1d. to 3d.
Carrots .. .. per doz. bnchs.	1/ to 2/	1/ to 1/6	1/ to 2/	1/ to 2/	..	8d.	..	6d.	1/ to 2/
Turnips .. .. per doz. bnchs.	1/ to 2/	1/ to 1/6	1/ to 2/	1/ to 2/	..	8d.	..	1/6	1/ to 2/
Cabbages .. .. per doz. ..	2/ to 4/	2/ to 3/3	2/ to 4/	1/ to 1/6	..	1/	..	2/	1/6 to 3/
VII. MISCELLANEOUS ARTICLES.									
Tea .. .. .. per lb. ..	1/4 to 2/	2/ to 2/2	1/9 to 2/	1/8 to 2/	1/6 to 2/	2/	2/	1/8	1/10 to 2/6
Coffee .. .. per lb. ..	1/4 to 1/9	1/8 to 2/	1/6 to 1/10	1/6 to 2/	1/10	1/10	1/6 to 2/	1/4	1/4 to 2/
Sugar .. .. per lb. ..	2¼d. to 3d.	3d.	3d.	2½d. to 3d.	3d.	2½d.	3d.	2½d.	2½d. to 3½d.
Rice .. .. per lb. ..	2½d. to 3d.	2½d. to 3d.	3d.	2½d. to 3d.	2½d.	2½d.	3d.	2d.	2½d. to 3d.
Salt .. .. per lb. ..	½d. to 1d.	1d.	1d.	1d.	1d.	1d.	1d.	½d.	1d. to 2d.
Soap .. .. per cwt. ..	11/ to 19/	20/ to 32/6	20/ to 25/	16/ to 22/	20/	20/	18/ to 23/	17/	15/6 to 22/
Candles .. .. per lb. ..	6½d. to 8d.	7d. to 8d.	8d.	6d. to 8d.	8d.	7d.	8d. to 9d.	6d. to 8d.	6d. to 9d.
Tobacco .. .. per lb. ..	5/3 to 6/	5/6 to 6/	5/6	5/ to 6/	6/	5/3	5/ to 6/	5/	4/9 to 6/
Coal .. .. per ton ..	27/ to 50/	40/ to 45/	36/ to 47/6	34/ to 50/	40/	38/	20/ to 35/	37/	16/ to 45/
Firewood .. .. per cord ..	24/ to 40/	23/ to 25/	14/ to 30/	14/ to 30/	35/	24/	15/ to 26/	40/	20/ to 30/
VIII. BEER, WINES, SPIRITS.									
Beer, colonial .. per hhd. ..	80/ to 100/	90/	90/ to 100/	80/ to 100/	..	85/	75/ to 96/	70/	70/ to 90/
Beer, English, bottled per doz. qts. ..	10/6 to 14/	15/ to 16/	13/ to 14/	13/ to 15/	13/	13/	14/ to 15/6	14/6	14/ to 18/
Brandy .. .. per gallon ..	25/ to 30/	32/6 to 36/	24/6 to 28/	25/ to 30/	28/	30/	24/ to 29/	25/6	24/ to 28/
Rum .. .. per gallon ..	24/ to 30/	25/ to 28/	22/ to 24/	24/ to 30/	25/	28/	23/ to 24/	25/	22/ to 27/
Whisky .. .. per gallon ..	22/ to 30/	30/	24/ to 28/	25/ to 27/6	30/	30/	24/6 to 25/3	24/6	24/ to 30/
Gin .. .. per gallon ..	24/ to 40/	22/6 to 40/	18/ to 25/	22/ to 30/	19/6	..	19/ to 24/6	25/	19/ to 28/
Wine, Australian .. per gallon ..	15/ to 25/	18/ to 20/	15/ to 18/	12/ to 21/	15/	..	14/ to 15/	14/6	16/ to 18/
Wine, European .. per gallon ..	17/ to 25/	30/ to 40/	19/ to 25/	20/ to 22/	17/6	..	16/ to 20/	24/	20/ to 25/

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901.

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marlborough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
1. AGRICULTURAL LABOUR.									
Farm-labourers:									
With board, per week	20/	15/ to 25/	20/ to 22/6	20/ to 30/	20/ to 25/	20/	20/ to 30/	15/ to 20/	15/ to 25/
Without board, per day	6/8	8/	6/ to 7/	7/	..	6/	..	5/	5/ to 6/
Ploughmen:									
With board, per week	20/	15/ to 25/	20/ to 25/	20/ to 30/	20/ to 30/	20/	..	20/ to 25/	20/ to 25/
Without board, per day	6/8	8/ to 9/	..	..	..	6/	..	6/	6/
Harvesters:									
With board, per week	25/ to 30/	..	..	45/ to 50/	..	40/	..	35/ to 50/	25/ to 40/
Without board, per day	8/4	1/ per hour	1/ per hour	8/	7/ to 8/	10/	..	8/ to 10/	7/ to 8/
Men-cooks on farms:									
With board, per week	20/ to 25/	25/	20/ to 25/	20/ to 30/	20/	20/	..	20/ to 25/	20/ to 30/
Female farm-servants:									
With board, per week	8/ to 15/	8/ to 15/	12/6 to 15/	10/ to 15/	8/ to 10/	10/	..	9/ to 11/	12/6 to 20/
2. PASTORAL LABOUR.									
Shepherds, with board, per annum ..	£39 to £65	£50 to £60	£65	£50 to £75	£75	£65	..	£52 to £72	£50 to £75
Stock-keepers, with board, per annum ..	£52 to £65	£50 to £60	£65	£50	£75	£65	..	£52 to £72	£50 to £75
Station-labourers:									
With board, per week	20/	15/ to 20/	20/ to 22/6	20/	20/	20/	..	15/ to 20/	15/ to 25/
Without board, per day	6/	6/6	..	..	..	6/	..	..	..
Shearers, with board, per 100 sheep shorn	17/ to 20/	17/6 to 20/	20/	17/ to 17/6	17/6	15/	..	15/ to 16/	15/
Men-cooks on stations, with board, per week	15/ to 25/	20/ to 25/	20/ to 25/	25/ to 30/	25/	20/	..	20/ to 25/	20/ to 30/
3. ARTISAN LABOUR (per day, without board).									
Masons	10/ to 12/	9/ to 10/	11/ to 12/	12/ to 12/6	15/	10/	..	11/	12/ to 13/6
Plasterers	10/ to 12/	9/ to 14/	10/ to 11/	9/ to 14/	9/	10/	..	10/	10/ to 12/
Bricklayers	9/ to 12/	9/ to 14/	9/ to 11/	9/ to 12/	8/ to 9/	10/	12/ to 14/	12/ to 13/	10/ to 12/6

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901—*continued.*

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
3. ARTISAN LABOUR (per day, without board)—*continued.*									
Carpenters	9/ to 12/	10/	9/	9/ to 12/	10/	8/	11/ to 12/6	10/8	10/8 to 12/
Smiths	8/ to 10/	8/to 9/	7/ to 10/	8/ to 10/	9/	8/	8/ to 12/	8/6 to 10/	8/ to 12/
Shipwrights	9/ to 10/	8/ to 10/	12/	10/ to 12/	..	10/	..	10/ to 12/	10/ to 14/
Plumbers	8/ to 12/	8/ to 14/	9/ to 10/	10/ to 12/	9/ to 10/	8/	10/ to 12/	10/	8/ to 12/
Painters	8/ to 10/	8/ to 9/	8/ to 9/	9/ to 10/	9/	8/	8/ to 10/	10/	7/ to 11/
Saddlers	7/8 to 9/	7/ to 8/	7/ to 9/	8/ to 9/	8/ to 9/	8/	8/ to 10/	8/	7/ to 9/
Shoemakers	7/6 to 8/	7/ to 8/	7/ to 8/	7/ to 9/	8/ to 9/	7/	7/ to 10/	6/ to 10/	8/ to 10/
Coopers	8/ to 10/	7/ to 9/	9/	8/ to 11/	..	10/	..	10/ to 12/	8/ to 10/
Watchmakers	8/ to 12/	7/ to 8/6	8/ to 11/	7/6 to 10/	10/	8/	..	7/ to 12/	7/ to 9/7
Wheelwrights	8/ to 12/	8/ to 10/	8/ to 10/	8/ to 10/	10/	10/	10/ to 12/	9/ to 10/	8/ to 12/
4. SERVANTS.									
Married couples without family, with board, per annum	£60 to £78	£65 to £85	£80	£65 to £80	£75	£75	..	£70 to £80	£65 to £80
Married couples with family, with board, per annum	£60 to £65	..	£70	£52 to £70	£80	£65	..	£52 to £60	£55 to £60
Grooms, with board, per week ..	15/ to 27/	15/ to 25/	20/ to 25/	20/ to 30/	20/	25/	20/ to 30/	20/ to 22/6	15/ to 25/
Gardeners:									
With board, per week	15/ to 20/	20/ to 27/6	20/ to 25/	20/ to 50/	25/	25/	20/	22/6 to 25/	20/ to 30/
Without board, per day	5/ to 7/	7/ to 8/	8/	7/	..	7/	..	5/	5/ to 8/
Cooks, with board, per week	15/ to 20/	20/ to 25/	17/6 to 20/	15/ to 40/	15/–20/	15/	12/ to 20/	15/ to 20/	15/ to 30/
Laundresses, with board, per week ..	10/ to 15/	15/ to 20/	12/ to 15/	10/ to 20/	20/	12/	15/ to 20/	15/ to 20/	12/ to 15/
General house servants, with board, per week	8/ to 12/	8/ to 12/	11/ to 15/	10/ to 15/	10/–15/	10/	10/ to 15/	10/ to 12/	10/ to 15/
Housemaids, with board, per week ..	9/ to 15/	10/ to 17/6	10/ to 12/6	12/6 to 15/	10/–15/	10/	12/6 to 15/	10/ to 12/	10/ to 20/
Nursemaids, with board, per week ..	5/ to 8/	5/ to 8/	7/6 to 9/	5/ to 10/	7/ to 9/	8/	5/ to 10/	5/ to 10/	5/ to 10/

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901—*continued.*

Description of Labour.	Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
4. SERVANTS—*continued.*									
Needlewomen:									
With board, per week	10/ to 18/	..	15/	20/ to 30/	..	15/	..	10/ to 12/	..
Without board, per day (lunch always provided)	2/6 to 4/	3/6	3/	3/6 to 5/	5/	5/	3/	3/	2/6 to 5/
5. MISCELLANEOUS.									
General labourers, without board, per day	5/ to 8/	7/ to 8/	6/ to 7/	6/6 to 8/	7/ to 8/	6/	9/ to 10/	5/ to 6/	5/ to 8/
Stonebreakers without board, per cubic yard	2/3 to 3/6	3/6	2/6	3/	..	1/	3/ to 5/	2/6 to 3/	1/6 to 2/
Seamen, with board, per month ..	£5 to £6	£5 to £6	£5 to £6/10	£3/10 to £6/10	..	£5 to £7	..	£7	£3/10 to £6
Miners, without board .. per day	8/ to 10/	8/	..	..	..	7/	10/	7/ to 8/	8/ to 11/
Engine-drivers, without board, per day	10/ to 12/	8/6 to 10/	10/ to 11/	9/ to 10/	..	9/	10/ to 12/	10/ to 12/6	9/ to 12/
Tailors, " per day	8/ to 9/	..	..	..	..	8/	9/ to 10/	..	..
" " per week	..	40/ to 60/	50/	42/ to 55/	45/	..	..	30/ to 80/	35/ to 60/
Tailoresses, " per day	2/6 to 5/	..	..	..	..	..	4/	..	..
" " per week	.. ..	25/ to 30/	20/ to 30/	20/ to 30/	25/	15/ to 30/	..	15/ to 35/	25/ to 30/
Dressmakers, " per day	3/ to 5/	..	..	..	..	..	4/ to 5/	..	..
" " per week	..	30/ to 40/	12/6 to 20/	10/ to 40/	20/	20/ to 45/	..	15/ to 27/	25/ to 30/
Milliners, " per day	4/ to 5/	..	..	..	..	..	4/ to 7/6	..	..
" " per week	..	30/ to 35/	15/ to 30/	12/6 to 40/	40/	20/ to 40/	..	12/6 to 25/	25/ to 30/

AVERAGE RATES OF WAGES IN EACH PROVINCIAL DISTRICT OF NEW ZEALAND DURING THE YEAR 1901—*continued.*

Description of Labour.		Auckland.	Taranaki.	Hawke's Bay.	Wellington.	Marl-b'rough.	Nelson.	Westland (Goldfield).	Canterbury.	Otago (Part Goldfield).
5. MISCELLANEOUS—*continued.*										
Machinists, without board,	per day	3/8 to 5/	..	..	..	..	..	2/3 to 4/	..	..
" "	per week	..	25/ to 35/	10/ to 25/	15/ to 30/	20/–25/	15/ to 25/	..	15/ to 30/	15/ to 30/
Storekeepers, "	per day	..	..	..	..	..	..	8/6 to 9/	..	..
" "	per week	30/ to 50/	45/	50/ to 60/	45/ to 70/	60/	40/	..	45/ to 60/	40/ to 60/
" assistants, "	per day	..	..	..	..	..	..	6/8 to 8/	..	..
" " "	per week	25/ to 40/	35/ to 37/6	20/ to 60/	45/ to 60/	40/	30/	..	25/ to 45/	15/ to 40/
Drapers' assistants, "	per day	..	..	..	..	..	..	3/6 to 7/	..	..
" "	per week	25/ to 50/	40/	25/ to 50/	42/ to 60/	50/	25/	..	25/ to 80/	15/ to 40/
Grocers' assistants, "	per day	..	..	..	..	..	..	6/8 to 7/6	..	..
" "	per week	25/ to 45/	35/	15/ to 40/	40/ to 45/	30/–40/	30/	..	20/ to 50/	25/ to 40/
Butchers, "	per day	..	..	..	..	..	..	7/ to 10/	..	..
" "	per week	25/ to 45/	40/	45/	35/ to 60/	50/	30/ to 40/	..	41/ to 65/	30/ to 60/
Bakers, "	per day	..	..	..	..	..	..	7/ to 10/	..	..
" "	per week	40/ to 50/	47/6	30/ to 50/	35/ to 60/	60/	50/ to 60/	..	45/ to 55/	25/ to 60/
Storemen, "	per day	..	..	..	..	..	..	8/6 to 10/	..	..
" "	per week	30/ to 45/	40/ to 45/	47/6 to 50/	40/ to 60/	42/	30/	..	40/ to 50/	30/ to 60/
Compositors, "	per day	..	..	..	..	..	..	8/4 to 10/	..	..
" "	per week	40/ to 55/	40/ to 50/	25/ to 45/	40/ to 60/	50/–70/	40/	..	60/ to 72/	40/ to 60/

Labour Legislation.

The legislation passed by the General Assembly of New Zealand, and termed the "Labour Laws," comprises the undermentioned statutes and regulations made under various Acts:—

"The Accidents Compensation Act, 1901."
"The Alcoholic Liquors Sale Control Act Amendment Act, 1895": Section 10.
Bankruptcy: Sections 112 and 120 of Act of 1892.
"The Coal-mines Act, 1891": Sections 18 to 58 and 64 to 88.
"The Coal-mines Act Amendment Act, 1901": Sections 3, 4, and 6.
"The Companies Acts Amendment Act, 1893": Sections 8 and 9.
"The Conspiracy Law Amendment Act, 1894."
"The Contractors' and Workmen's Lien Act, 1892."
"The Criminal Code Act, 1893": Sections 150 and 213.
"The Deaths by Accidents Compensation Act, 1880."
"The Electoral Act Amendment Act, 1900": Section 10.
"The Employers' Liability Act, 1882," with amendments of 1891 and 1892.
"The Factories Act, 1901."
"The Industrial Conciliation and Arbitration Act, 1900," with amendments of 1901.
The Inspection of Machinery Acts, 1882, 1883, and Amendment Acts of 1894, 1896, 1900, and 1901.
"The Kauri-gum Industry Act, 1898," and Amendment Act, 1899.
"The Labour Day Act, 1899."
"The Land for Settlements Act Amendment Act, 1896" (provision for workmen's homes).
"The Legitimation Act, 1894": Section 6.
"The Licensing Act, 1881," section 131.
"The Master and Apprentice Act, 1865." Master and Apprentice: Extract from "The Criminal Code Act, 1893," sections 150 and 213.
"The Mining Act, 1898," and Amendment Acts, 1900 and 1901.
"The Public Contracts Act, 1900."
"The Servants' Registry Offices Act, 1895."
"The Shearers' Accommodation Act, 1898."
"The Shipping and Seamen's Act, 1877," with Amendment Acts of 1885, 1890, 1894, 1895, 1896, and 1899.
"The Shops and Shop-assistants Act, 1894," with Amendment Acts of 1895, 1896, and 1901.
"The Sunday Labour in Mines Prevention Act, 1897."
"The Threshing-machine Owners' Lien Act, 1895."
"The Trade-Union Act, 1878," and Amendment Act, 1896.
"The Truck Act, 1891."
"The Wages Attachment Act, 1895."
"The Wages Protection Act, 1899" (forming part of and to be read with "The Truck Act, 1891").
"The Workers' Compensation for Accidents Act, 1900."
"The Workmen's Wages Act, 1893."

The labour laws have been passed in the effort to regulate certain conditions affecting employer and employed. Their scope embraces many difficult positions into which the exigencies of modern industrial life have forced those engaged in trades and handicrafts. The general tendency of these laws is to ameliorate the position of the worker by preventing social oppression through undue influences, or through unsatisfactory conditions of sanitation. It will undoubtedly be found that, with the advance of time, these laws are capable of improvement and amendment; but they have already done much to make the lives of operatives of fuller and more healthy growth, and their aim is to prevent the installation of abuses before such abuses attain formidable dimensions.

The manufacturing population in New Zealand differs from that in some of the Australian States by its wide dispersion. The capital city has hitherto been unable to draw to itself the industrial ability of the other provincial centres; and not only do Auckland, Christchurch, and Dunedin vie with Wellington as centres of population, but also as *nuclei* of commercial activity. In the second-class towns, such as Nelson, Napier, Invercargill, &c., many important works are being carried on, while even in the villages and rural districts the progress of new settlement necessitates the manufacture of articles which in older communities are produced in specialised localities. Men scattered widely at the numerous occupations of colonial country life, shearing, harvesting, bush-felling, road-making, or sailing coastal vessels, &c., require legal protection against the dangers and disabilities to which their callings expose them. This general dispersion of industry necessitates not only a wide system of supervision, but legislative measures of a peculiar character, at once sufficiently elastic to comprehend many varieties of function, and yet rigid to crush any apparent abuse.

The most important of these laws, in its general significance, is that dealing with compulsory arbitration in labour disputes. "The Industrial Conciliation and Arbitration Act, 1894" (with its amending Acts of 1895, 1896, and 1898), were consolidated and further amended by the Acts of 1900 and 1901, now in force, and which are for the purpose of encouraging industrial association, and to facilitate the settlement of trade difficulties. Societies consisting of two or more employers, or of seven or more workers, may be registered and become subject to the jurisdiction of the Board and Court appointed by the Act of 1900. Any such society, after complying with stated conditions, may bring a disputed case before the Board of Conciliation appointed for that industrial district, and, if the Board fails to effect a settlement, the dispute may be referred to the Court of Arbitration, whose award may be enforced in the same manner as an award of the Supreme Court. The amount, however, for which such an award may be enforced against an association is limited to £500.

"The Factories Act, 1901," is a consolidation of previous legislation, with some important amendments. New Zealand has been divided into factory districts under the charge of a Chief Inspector and 150 local Inspectors. As a "factory" or "work-room" includes any place in which two or more persons are engaged in working for hire or reward in any handicraft, there are few operatives who do not come within the scope of the Act. Children under fourteen years of age are not allowed to be employed, and the hours of labour, holidays, &c., of women and youths under sixteen are strictly regulated. Good ventilation, sanitary accommodation, and general cleanliness of buildings are points dwelt upon; while machinery has to be properly guarded, fire-escapes provided, and dangerous occupations especially classified. In order to assist the system of free general education which prevails in the colony, young persons are not allowed to work in factories till they have passed the Fourth Standard of the State schools, or an equivalent examination. To prevent the introduction of "sweating" into our commercial centres, articles made, or partly made, in private dwellings, or unregistered workshops, have to be labelled when offered for sale, so that goods so manufactured (often in unsanitary premises) may not be placed in the market in competition with work done in properly inspected factories. Any person removing such labels is liable to a heavy fine. The Factory Inspectors also exercise supervision over the sleeping accommodation provided for shearers in country districts. As the sheep-runs and farms are widely scattered, sometimes in the rough and remote back country, this part of the work of inspection is no easy task. A woman Inspector of Factories also gives her assistance to the duties of the department, travelling from place to place, and particularly looking into the condition of the operative women and girls.

The duration of the hours of business in shops is limited by "The Shops and Shop-assistants Act, 1894," and the Shops and Shop-assistants Act Amendment Acts, 1895, 1896, and 1901. These provide for the closing of all shops in towns and boroughs for one afternoon half-holiday in each week. A few shops, such as those of fishmongers, fruiterers, eating-house keepers, &c., are exempted from the

general closing on account of their convenience to the public; but assistants in such establishments, in the bars of hotels, and in country stores, must have a half-holiday on some day of the week. Very small shops carried on by Europeans without paid assistants are also exempt from closing on the general half-holiday, but must close on one afternoon in each week. The hours of work for women and young persons are defined; sitting accommodation must be provided, and precautions as to the necessary time for meals, sanitary accommodation, &c., are enforced; the Act also enumerates the working-hours, holidays, &c., of clerks employed in banks, mercantile offices, &c.

"The Employers' Liability Act, 1882," added to and amended in 1891 and 1892, is designed to protect workmen from negligence on the part of employers, by defining under what circumstances compensation for injury or death may be recoverable. The Act covers all employments except that of domestic servant, and does not allow of any "contracting out" by agreement on the part of employer and employed. Another Act of this character has regard to the payment of workmen's wages, and states that if a workman shall demand payment of wages twenty-four hours or more after they are due, and the contractor does not pay such wages, the workman may legally attach all moneys due to the contractor by the employer until such wages are paid. "The Truck Act, 1891," requires that payment of wages shall not be made in goods or "truck," but in money, any contra account notwithstanding; but there are a few exemptions, such as for advances for food, tools, &c., to men engaged in felling bush. In order to minimise the number of cases wherein fraudulent or unfortunate contractors victimised their labourers, "The Contractors' and Workmen's Lien Act, 1892," was brought into existence. This entitles a person who has done work upon any land, building, or chattel to a lien upon such property. The lien only to be exercised under certain restrictions, and for a limited amount, but it gives priority of claim for wages against other service, and enables legal proceedings for recovery to be taken before the attached property can be disposed of or alienated.

"The Workers' Compensation for Accidents Act, 1900," will probably almost altogether supersede the Employers' Liability Act, because, while an accident to a workman had not to be compensated by an employer under the latter Act unless it had occurred through his carelessness or that of his agent, under the former all accidents are to be compensated unless they are caused by the serious and wilful misconduct of the person injured. To meet the difficulty of too great expense falling on an employer through his having to pay large accident compensation, "The Government Accident Insurance Act, 1899," was passed, which insures employers against risk of paying compensation.

"The Accidents Compensation Act, 1901," provides that an independent medical examination of the injured person may be ordered by the Judge before whom a claim of compensation for accident is brought.

"The Servants' Registry Offices Act, 1895," regulates the licensing of registry offices for domestic or farm servants. It prevents friendless or uneducated people from becoming the prey of unscrupulous persons, who formerly collected fees by duping the applicants for situations. The registry-office keepers have to pay a licensing fee to the Government, and to present a certificate of good character when applying for a license. Proper ledgers and books open to inspection must be provided, and the lending or hiring of licenses is not permitted. Registry-office keepers are not allowed to keep lodging-houses for servants, or have any interest in such houses.

There are sundry Acts for the supervision of shipping, and the protection of sailors and passengers. They relate to the appointment of pilots and ships' officers; the engagement and discharge of sailors; the sanitation, ventilation, and overloading of vessels; and the number of duly rated hands engaged in proportion to tonnage. They endeavour to prevent injustice to the sailor as to advance-notes, or payments in foreign money, and also specify penalties to be inflicted for desertion, disobedience, &c.

Combinations or associations of persons for regulating the relations between masters and masters, or masters and workmen, or workmen and workmen, are

directed by "The Trade Union Act, 1878." In this Act the different statutes which do not apply to trade-unions (such as the Joint Stock Act, the Friendly Societies Act, &c.) are enumerated, and the manner in which such societies may register, hold property, &c., is set out, together with the necessary provisions as to returns, penalties, &c. [An Amendment Act was passed in 1896, altering the age of membership.] "The Conspiracy Law Amendment Act, 1894," permits any combination of persons in furtherance of a trade dispute, provided that any act performed by such combination or society would not be unlawful if done by one person. Such action must not include riot, sedition, or crime against the State.

"The Wages Attachment Act, 1895," prevents wages below £2 a week being attached for debt. It does not interfere with any workman being sued for debt in the ordinary course, but prevents a grasping creditor from stepping in before others and seizing wages in advance before they are earned. [There is also "The Wages Protection Act, 1899," which has to be read with "The Truck Act, 1891," previously alluded to.]

"The Master and Apprentice Act, 1865," applies mainly to the indenturing of apprentices by the State, such apprentices being children of destitute parents. In other respects the law of England is held to be the law governing the relations between masters and apprentices in this colony; but special sections of the Act apply to the punishment of apprentices for absenting themselves from duty, and to the fine on a master for neglecting or ill-using his apprentice. Sections 150 and 213 of "The Criminal Code Act, 1893," also relate to the proper care of apprentices by their masters.

"The Mining Act, 1898," consolidates and repeals all statutes of a similar nature, and includes various amendments suggested by the Conference of Wardens of goldfields, and by mining associations. The mining legislation refers to labour in any kind of mine, and deals with the position of tributers and wagesmen, the examination for certificates for mine-managers, &c., provision for ventilation, precautions against accident by blasting, &c. There are Amending Acts of 1900 and 1901, providing for the inspection of mines by workmen, and limiting the number of hours of working underground.

In or about coal-mines women and boys are not allowed to be engaged. There is provision for the appointment of inspectors, mine-managers, engine-drivers, &c., and rules are furnished as to the ages and working-hours of those employed in attending engines, machinery, winding-gear, &c. The ventilation of mines is provided for, and the necessary safeguards imposed as to blasting operations, working in foul air, protecting lights, &c. There are regulations for the management and administration of funds and moneys, which relate chiefly to the withdrawal of moneys from the Sick and Accident Fund, and returns demanded from trustees of the fund.

There is also "The Deaths by Accident Compensation Act, 1880."

"The Public Contracts Act, 1900," provides that any person entering into a contract exceeding the value of twenty pounds, with the Government, any Education Board, Harbour Board, or local authority, and employing skilled or unskilled manual labour in the execution of such contract, shall be bound to pay wages at the rate ruling in the locality of the work, but in no case lower than the rates fixed by the Arbitration Court. The maximum length of the working day on any public contract is not to exceed eight hours. A penalty, not exceeding ten pounds, is recoverable by summary proceedings for every breach of the provisions of the Act.

Co-operative Public Works.

Remarks on the co-operative system of constructing public works were given in a special article in the Year-book of 1894. The numbers of workmen employed in this manner under Government departments during the financial year 1901–1902 were :—

		Roads and Lands and Survey Departments.	Public Works Department.	Total.
April,	1901 ..	2,692	2,877	5,569
May,	" ..	2,638	3,030	5,668
June,	" ..	2,411	3,098	5,509
July,	" ..	2,290	3,337	5,627
August,	" ..	2,289	3,045	5,334
September,	" ..	2,224	3,365	5,589
October,	" ..	2,006	3,392	5,398
November,	" ..	1,841	3,174	5,015
December,	" ..	1,652	2,588	4,240
January,	1902 ..	1,037	1,881	2,918
February,	" ..	883	1,537	2,420
March,	" ..	769	752	1,521

The average number of men employed in each year was as follows:—

Year.	Lands and Survey Department.	Public Works Department.	Total.
1891–92	261	527	788
1892–93	280	842	1,122
1893–94	933	1,015	1,948
1894–95	1,103	962	2,065
1895–96	1,572	764	2,336
1896–97	1,459	854	2,313
1897–98	1,552	890	2,442
1898–99	1,613	1,194	2,807
1899–1900	1,825	1,243	3,068
1900–1901	1,820	2,090	3,910
1901–1902	1,894	2,673	4,567
Gross totals	14,312	13,054	27,366
Average ..	1,301	1,187	2,488

Labour Department.

The total number of men for whom employment has been found by the Department of Labour up to the end of March, 1902, is given below. The statement also exhibits the number of persons dependent upon the men assisted:—

	Men.	Dependents.
June, 1891, to 31st March, 1892	2,593	4,729
1st April, 1892, to 31st March, 1893 ..	3,874	7,802
1st April, 1893, to 31st March, 1894 ..	3,371	8,002
1st April, 1894, to 31st March, 1895 ..	3,030	8,883
1st April, 1895, to 31st March, 1896 ..	2,871	8,424
1st April, 1896, to 31st March, 1897 ..	1,718	4,719
1st April, 1897, to 31st March, 1898 ..	2,035	4,928
1st April, 1898, to 31st March, 1899 ..	2,115	4,759
1st April, 1899, to 31st March, 1900 ..	2,147	4,471
1st April, 1900, to 31st March, 1901 ..	3,124	5,432
1st April, 1901, to 31st March, 1902 ..	1,830	2,747
	28,708	64,896

SECTION XXII.—TRANSPORT AND COMMUNICATION.

SHIPPING.

THE shipping entered inwards during 1901 comprised 688 vessels, of 1,063,274 tonnage; while entered outwards were 691 vessels, of 1,075,906 tons. Comparison with the figures for the previous year shows in the entries an increase of 72 vessels and 208,642 tons, and in the clearances an increase of 78 vessels and 250,631 tons. Of the vessels inwards, 175, of 448,688 tons, were British; 441, of 461,729 tons, colonial; and 72, of 152,857 tons, foreign. Those outwards numbered 177, of 462,179 tons, British; 441, of 458,994 tons, colonial; and 73, of 154,733 tons, foreign. Compared with the figures for 1900 there was an increase of 19 vessels and 56,294 tonnage in British vessels entered, and an increase in the colonial shipping entered of 48 vessels and 69,210 tons. Foreign shipping shows an increase of 5 in the number of vessels entered, and of 83,138 tons. Of the entries in 1901, 250, of 142,391 tons, were sailing-vessels, and 438, of 920,883 tons, steamers. Of the clearances, 244, of 136,167 tons, were sailing-vessels, and 447, of 939,739 tons, steamers. The shipping inwards and outwards for ten years is given in the table following:—

VESSELS ENTERED, 1892-1901.

Year.	Total Number.			British.			Colonial.			Foreign.		
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
1892 ..	686	675,223	22,038	203	335,577	8,274	411	265,769	11,303	72	73,877	2,461
1893 ..	617	615,604	20,935	166	290,323	7,289	405	272,250	11,745	46	53,031	1,901
1894 ..	609	631,100	21,834	141	271,994	6,456	423	306,547	13,279	45	52,559	2,099
1895 ..	611	672,951	22,074	146	299,667	6,837	420	319,313	13,209	45	53,971	2,028
1896 ..	589	614,097	19,857	126	249,601	5,495	395	300,176	12,210	68	64,320	2,152
1897 ..	600	686,899	21,542	133	276,020	6,086	395	340,793	13,138	72	70,086	2,318
1898 ..	620	765,255	24,081	152	329,065	7,910	399	369,840	13,897	69	66,350	2,274
1899 ..	609	811,183	23,929	149	350,861	6,986	388	392,671	14,666	72	67,651	2,277
1900 ..	616	854,632	23,791	156	392,394	7,183	393	392,519	14,135	67	69,719	2,473
1901 ..	688	1,063,274	29,724	175	448,688	7,713	441	461,729	16,063	72	152,857	5,948

VESSELS CLEARED, 1892-1901.

1892 ..	689	656,100	21,679	189	315,633	7,934	424	263,504	11,241	76	76,963	2,504
1893 ..	635	642,466	21,448	186	317,130	7,839	400	270,308	11,665	49	55,028	1,944
1894 ..	614	631,250	21,934	140	270,464	6,437	432	310,050	13,527	42	50,736	1,970
1895 ..	597	648,946	21,619	134	281,840	6,528	420	315,171	13,068	43	51,935	2,023
1896 ..	592	627,659	20,217	123	259,064	5,637	402	305,926	12,448	67	62,669	2,132
1897 ..	587	675,333	21,409	140	280,229	6,240	378	327,068	12,881	69	68,036	2,288
1898 ..	622	765,793	24,130	150	322,150	7,898	403	377,102	13,948	69	66,541	2,284
1899 ..	604	807,866	24,117	152	355,442	7,194	379	386,219	14,656	73	66,205	2,267
1900 ..	613	825,275	23,481	149	368,241	6,978	397	388,436	14,153	67	68,598	2,350
1901 ..	691	1,075,906	30,028	177	462,179	7,954	441	458,994	16,106	73	154,733	5,968

NOTE.—Coasting-vessels are not included in the above table.

The noticeable feature in the operations for the decennium is a considerable increase of tonnage inwards and outwards, but not in the numbers of vessels, showing that larger ships are now used than those of ten years ago.

The figures given apply to the external trade only; but in a new country such as New Zealand, as yet deficient in roads, but having an extensive seaboard and a number of good harbours, the coastal trade must be relatively very large, as is evidenced by the figures next given:—

SHIPPING ENTERED COASTWISE, 1901.

	Number.	Tons.
Sailing-vessels	4,441	274,455
Steamers	17,039	7,569,358

SHIPPING CLEARED COASTWISE, 1901.

	Number.	Tons.
Sailing-vessels	4,406	276,181
Steamers	17,016	7,523,716

The total number of vessels entered coastwise was thus 21,480, of 7,843,813 tons, an increase of 571 vessels and 971,460 tons on the figures for 1900. The total clearances coastwise were 21,422 vessels, of 7,799,897 tons, an increase of 549 vessels and 929,242 tons on the number for the previous year.

REGISTERED VESSELS.

The number and tonnage of the registered vessels belonging to the several ports on the 31st December, 1901 (distinguishing sailing-vessels and steamers), was as under:—

REGISTERED VESSELS, 31ST DECEMBER, 1901.

Ports.	Sailing-vessels.			Steam-vessels.		
	Vessels.	Gross Tonnage.	Net Tonnage.	Vessels.	Gross Tonnage.	Net Tonnage.
Auckland	174	17,626	16,761	86	11,596	7,012
Napier	8	824	801	17	1,543	843
Wellington	22	4,019	3,865	25	4,391	2,426
Nelson	7	180	180	9	820	517
Lyttelton	30	6,198	5,873	9	2,178	911
Dunedin	47	14,358	14,063	68	77,620	47,454
Invercargill	15	1,619	1,565	3	211	55
Totals	303	44,824	43,108	217	98,359	59,218

RAILWAYS.

The history and progress of railways in New Zealand was specially described in the Year-book of 1894, as was also the line partly built by the New Zealand Midland Railway Company. An account of the line belonging to the Wellington and Manawatu Railway Company was published in the Year-book for 1895.

The length of Government railways open for traffic on the 31st March, 1902, was 2,235 miles, of which 840 were situated in the North Island and 1,395 in the Middle Island.

The sections of the North Island lines consist of the Kawakawa, 8 miles; Whangarei, 23; Kaihu, 17; Auckland, 341; and the Wellington–Napier–New Plymouth, 451 miles. The Middle Island sections comprise the Hurunui–Bluff, with branches, 1,198 miles; Westland, 112; Westport, 31; Nelson, 33; Picton, 21 miles. The total cost of construction has been £18,170,722 (besides £1,325,831 spent on unopened lines), and the average cost per mile £8,159.

The following statement shows the number of miles of Government railways open, the number of train-miles travelled and of passengers carried, and the tonnage of goods traffic, for the past twelve years:—

Year.	Length open.	Train-mileage.	Passengers.	Season Tickets issued.	Goods and Live-stock.*
					Tons.
1890–91	1,842	2,894,776	3,433,629	13,881	2,134,023
1891–92	1,869	3,010,489	3,555,764	16,341	2,122,987
1892–93	1,886	3,002,174	3,759,044	16,504	2,258,235
1893–94	1,948	3,113,231	3,972,701	17,226	2,128,709
1894–95	1,993	3,221,620	3,905,578	28,623	2,123,343
1895–96	2,014	3,307,226	4,162,426	36,233	2,175,943
1896–97	2,018	3,409,218	4,439,387	43,069	2,461,127
1897–98	2,055	3,666,483	4,672,264	48,660	2,628,746
1898–99	2,090	3,968,708	4,955,553	55,027	2,744,441
1899–1900 ..	2,104	4,187,893	5,468,284	63,335	3,251,716
1900–1901 ..	2,212	4,620,971	6,243,593	82,921	3,461,331
1901–1902 ..	2,235	5,066,360	7,356,136	100,778	3,667,039

The traffic in local products for the past twelve years was:—

Year.	Wool.	Timber.	Grain.	Minerals.	Horses and Cattle.	Sheep and Pigs.
	Tons.	Tons.	Tons.	Tons.	Number.	Number.
1890–91 ..	87,701	153,078	528,683	828,079	44,999	1,313,155
1891–92 ..	85,888	170,521	442,277	873,899	47,618	1,117,253
1892–93 ..	96,842	169,910	523,637	884,031	46,590	1,359,860
1893–94 ..	101,340	183,192	411,191	864,538	51,573	1,394,456
1894–95 ..	103,328	198,578	388,556	857,917	52,075	1,563,213
1895–96 ..	99,363	213,132	374,699	878,659	50,766	1,893,058
1896–97 ..	98,958	257,825	423,888	1,032,252	47,256	2,016,437
1897–98 ..	103,055	313,073	427,448	1,048,868	54,871	2,399,379
1898–99 ..	97,396	310,266	420,071	1,147,353	66,226	2,552,745
1899–1900 ..	104,621	334,677	764,033	1,218,698	76,537	2,559,836
1900–1901 ..	96,519	380,803	772,571	1,366,241	84,289	2,463,250
1901–1902 ..	101,878	427,153	813,345	1,443,792	95,384	2,780,019

* The equivalent tonnage for live-stock has been given.

The cash revenue for the year 1901–1902 amounted to £1,874,586; and the total expenditure to £1,252,237. The net cash revenue—£622,349—was equal to a rate of £3 8s. 6d. per cent. on the capital cost; the percentage of expenditure to revenue was 66·80. The earnings on some of the lines ranged as high as £6 3s. 3d., and even £14 15s. 9d., per cent.

The particulars of the revenue and expenditure for the past twelve years are given herewith:—

Year.	Passenger Fares.	Parcels Luggage and Mails.	Goods and Live-stock.	Rents and Miscellaneous.	Total.	Expenditure.	Net Revenue.	Percentages of Expenditure to Revenue.	Percentages of Revenue to Capital Cost.		
	£	£	£	£	£	£	£	%	£	s.	d.
1890–91	353,593	38,997	690,779	38,332	1,121,701	700,703	420,998	62·47	2	18	11
1891–92	364,617	41,795	671,469	37,550	1,115,431	706,517	408,914	63·34	2	15	9
1892–93	390,619	44,801	707,785	38,316	1,181,521	732,141	449,380	61·97	3	1	0
1893–94	402,019	45,206	686,469	39,098	1,172,792	735,358	437,434	62·70	2	17	9
1894–95	385,149	43,270	683,726	38,706	1,150,851	732,160	418,691	63·62	2	14	6
1895–96	389,234	54,736	698,115	40,956	1,183,041	751,368	431,673	63·51	2	16	0
1896–97	410,160	58,084	774,163	43,751	1,286,158	789,054	497,104	61·35	3	3	10
1897–98	433,430	60,872	837,589	44,117	1,376,008	857,191	518,817	62·30	3	4	10
1898–99	475,553	66,418	882,077	45,617	1,469,665	929,737	539,928	63·26	3	5	10
1899–00	515,020	68,488	985,723	54,660	1,623,891	1,052,358	571,533	64·80	3	8	5
1900–01	544,976	72,712	1,051,694	57,854	1,727,236	1,127,847	599,389	65·30	3	9	8
1901–02	621,019	79,561	1,110,575	63,431	1,874,586	1,252,237	622,349	66·80	3	8	6

NOTE.—For 1895-96 and subsequent years the railways have been credited with the value of services performed for other Government departments, and debited with the value of work done for the railways by other departments.

The revenue per (average) mile of railway open during the year was £842, and the expenditure £562; equal to 8s. 1d. and 5s. 3d. per train-mile respectively.

The total number of miles travelled by trains was 5,066,360.

In addition to the above railways, there were 88 miles of private lines open for traffic on the 31st March, 1902—namely, the Wellington–Manawatu Railway, 84 miles; and the Kaitangata Railway Company's line, 4 miles.

The cost of the construction of the Wellington–Manawatu Railway was £774,375, being at the rate of £9,219 per mile. The term "cost of construction," as applied to railways, includes value of equipment, rolling-stock, &c., not merely the road-line and buildings. The revenue for the twelve months ended the 28th February, 1902, amounted to £104,207, and the working-expenses to £55,202, equivalent to 52·97 per cent. of the revenue.

Australasian Railways.

The following statement gives the average number of miles of Government railways open for traffic in Australasia in 1900–1901:—

Railways (State only).

State or Colony.	Year ended	Average Miles open.	Train Miles Run.	Cost of Construction of Open Lines.	Gross Receipts.	Working Expenses.	Percentage of Net Revenue to Cost.	Number of		
								Locomotives.	Vehicles.	
									Passenger.	Goods and Live-stock.
				£	£	£	%			
Queensland ..	30 June, 1901	2,801	5,788,112	19,739,495	1,316,936	1,057,981	1·31	349	410	6,619
New South Wales ..	30 June, 1901	2,818	10,763,697	38,932,781	3,573,779	2,043,201	3·94	495	771	11,379
Victoria	30 June, 1901	3,228	11,066,016	40,145,404	3,337,797	1,984,796	3·37	528	1,147	9,729
South Australia ..	30 June, 1901	1,882	4,423,458	14,326,765	1,250,461	754,319	3·46	351	418	6,393
Western Australia ..	30 June, 1901	1,355	4,126,202	7,098,239	1,353,704	1,044,920	4·35	229	258	4,819
Tasmania	31 Dec., 1900	*445	815,903	†3,659,069	202,959	160,487	1·16	68	167	1,425
New Zealand ..	31 Mar., 1902	2,227	5,066,360	18,170,722	1,874,586	1,252,237	3·43	362	701	12,444

* Includes 7½ miles private lines worked by Government. † State railways only.

In addition to the Government lines open for traffic in 1901, New South Wales had 85 miles of private railway; Western Australia, 623 miles; Tasmania, 148 miles, 7½ miles of which are worked by Government; and New Zealand, 88 miles.

Postal and Electric Telegraph.

There were 1,739 post-offices in New Zealand at the end of 1901.

The number of letters, letter-cards, post-cards, books, and pattern-packets, newspapers, and parcels dealt with during the year, compared with the number handled in 1900, was as under:—

	Total Number dealt with. 1901.	1900.	Increase.
Letters	51,544,265	38,662,296	12,881,969
Letter-cards	1,023,295	1,236,183.	*212,888
Post-cards	1,522,377	1,908,515	*386,138
Books and pattern-packets	18,262,566	17,715,402	547,164
Newspapers	18,973,632	17,045,715	1,927,917
Parcels	273,442	233,456	39,986

* Decrease.

The average number of letters, &c., posted per head of the population in each of the past six years was,—

	1896.	1897.	1898.	1899.	1900.	1901.
Letters and letter-cards	40·77	42·98	45·34	47·77	49·01	63·49
Post-cards	1·65	1·84	1·90	2·12	2 43	1·88
Books and parcels	17·19	17·36	19·72	21·68	21·10	21·09
Newspapers	13·47	14·10	14·77	15·13	16·17	17·81

The facilities afforded for the transmission of parcels through the Post Office to places within and without the colony have proved of much convenience to the public. The regulations admit of parcels up to 11 lb. in weight being sent to almost all the important countries of the world.

The following table shows the number of parcels exchanged with the United Kingdom, the Australian States, &c., in 1900 and 1901:—

Country.	Number of Parcels. Received. 1900.	Received. 1901.	Despatched. 1900.	Despatched. 1901.
United Kingdom and foreign countries *vid* London	21,682	24,011	4,690	5,787
United States	*922	8,019	409	833
Vancouver	147	221	89	131
Victoria	3,540	2,853	1,322	1,456
New South Wales	6,229	7,260	1,809	2,386
South Australia	244	284	191	245
Queensland	308	408	267	342
Tasmania	143	217	312	377
Western Australia	260	211	262	264
Samoa	15	..	128	155
Rarotonga	19	32	65	86
Fiji	36	60	139	168
Norfolk Island	..	..	1	..
Ceylon	382	487	165	101
Uruguay	..	..	15	17
Cape Colony	309	814	707	537
Transvaal	..	..	345	378
Natal	..	72	..	26
Malta	..	2	..	..
India	..	..	..	†47
Totals	34,236	39,951	10,916	13,336

* Six months only. † Four months only.

The declared value of the parcels received from places outside the colony was £109,683, on which the Customs duty amounted to £22,406.

The number and weight of parcels dealt with in 1890 and 1895 to 1901 are given. The word "parcels" in the first-named table includes the parcels herein mentioned:—

—	1890.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Parcels, No.	136,327	176,206	186,611	197,554	204,603	223,350	233,456	273,442
Weight, lb.	380,521	582,193	654,333	676,054	698,301	765,836	794,994	928,237

Money-orders and Postal Notes.

The number of offices open for the transaction of money-order business at the end of 1901 was 477.

During 1901, 405,967 money-orders, for a total sum of £1,286,508 1s. 10d., were issued at the various post-offices in the colony. The money-orders from places beyond New Zealand and payable in the colony numbered 27,770, for the amount of £103,821 19s. 2d.

The number of offices open for the sale of postal notes at the end of 1901–1902 was 550: 556,316 postal notes were sold, value £173,317 5s. Commission amounted to £3,790 15s. 11½d.

The notes paid numbered 552,878, value £172,522 15s. 6d.

Mail-services.

The cost of the various mail-services between England and New Zealand was, in 1901, as follows:—

San Francisco Service. 1901.

	£	s.	d.
Payments—			
Subsidies, &c.	26,370	1	1
Interprovincial and other charges ..	5,582	6	4
	£31,952	7	5
Receipts—			
Contributions from non-contracting colonies	1,289	1	6
Postages collected in the colony	13,569	5	9
	£14,858	7	3
Loss to the colony	£17,094	0	2

Peninsular and Oriental and Orient Lines Services.

	£	s.	d.
Payments—			
To P. and O. and Orient Lines	3,604	12	10
Transit across Australia	219	17	9
" European Continent ..	468	5	7
Intercolonial services	1,756	9	8
	£6,049	5	10

Receipts—	£	s.	d.
Postages collected from England and from foreign offices	1,323	16	4
Postages collected in the colony	2,051	8	2
	£3,375	4	6
Loss to the colony	£2,674	1	4

The total amount of postages collected and contributions received for these services in 1901 was £18,233 11s. 9d.

The average number of days in 1901 within which the mails were delivered between London and each of the undermentioned ports in New Zealand was:—

London to—	San Francisco Service.	P. and O. Line.	Orient Line.
Auckland	30·94	37·62	39·46
Wellington	32·24	39·00	39·92
Dunedin	33·53	39·63	40·13
Bluff	34·28	38·88	39·38

Electric Telegraph.

There were 7,469 miles of telegraph-line open at the end of March, 1902, carrying 21,705 miles of wire. 4,167,981 telegrams were transmitted during the year; of these, the private and Press messages numbered 3,850,391, which, together with telephone exchange and other telegraph receipts, yielded a revenue of £207,476 4s. 8d.

There were twenty-three telephone central exchanges and thirty-five sub-exchanges on the 31st March, 1902. The number of connections increased from 8,210 in March, 1901, to 9,260 in March, 1902. The subscriptions to these exchanges during the financial year amounted to £55,542 4s. 9d.

The capital expended on the equipment, &c., of the several telephone exchanges up to the 31st March, 1902, was £193,511 16s. 2d.

SECTION XXIII.—GOVERNMENT VALUATION OF LAND AND ITS IMPROVEMENTS.

RESULTS OF THE GENERAL VALUATION MADE FOR MARCH, 1898, AND ITS REVISION TO MARCH, 1902.

IN the year 1896 an Act intituled the Government Valuation of Land Act was passed, providing for the appointment of a Valuer-General, and for the periodical valuation of all land in the colony. The Valuer-General is the Commissioner of Taxes for the time being. The valuations on the general roll are used for the assessment of land-tax, stamp duties, and duties on deceased persons' estates; for local rates, except in places where these are levied on the annual value; also, for the purposes of advances and investments on mortgage of land by the Post Office, Government Insurance Department, Public Trust Office, Government Advances to Settlers Office, and the Commissioners of the Public Debts Sinking Funds. The valuation is also used for the guidance of the Government in transactions under "The Land for Settlements Act, 1894," and "The Public Works Act, 1894."

The term "land" means and includes all lands, tenements, buildings, and hereditaments, whether corporeal or incorporeal, and also includes all chattel interests in land.

A certified copy of any entry in the general valuation-roll is supplied by the Department on payment of the prescribed fee.

The general valuation-roll continues in force until a fresh roll is made, but whilst in force it may be altered and amended from time to time. The rolls for rating purposes are supplied to local bodies by the Valuer-General on the request of the local authority. The aim is to insure a standard valuation for taxation, local rating, and loan purposes.

Owners and occupiers dissatisfied with their valuations have the right of objection, the procedure being that laid down by "The Rating Act, 1894," and the regulations under "The Government Valuation of Land Act, 1896."

The cost of making the valuation is divided proportionally between the Departments mostly using it and the local authorities, while separate fees are provided for by regulation for supplying individual valuations to persons requiring them.

The general valuation-roll shows the capital value of the property, of improvements, and the unimproved value of the land.

The surface-value only of gold mines is included, and the value of the Government railways has been excluded.

All land is included, whether occupied or unoccupied, whether owned by private individuals, by the Crown, by Natives, by local authorities, Education Boards, School Commissioners, Churches, corporations, companies, or societies of all kinds, and whether subject to or exempt from taxation or rates.

The result of the general valuation of land as in March, 1898, is given in the report of the Valuer-General, presented to both Houses of Parliament. Since this general valuation a revision has been made in many districts, which brings the figures as corrected to represent the values on the 31st March, 1902. Comparative figures are here given for 1891 and 1902 showing the increase, and stating separately the unimproved value and the value of improvements.

COMPARISON OF CAPITAL VALUES, 1891 AND 1902.

	1891. £	1902. £	Increase, 1891 to 1902. £
Unimproved value ..	75,787,895	94,847,727	19,059,832
Value of improvements	46,365,297	59,968,405	13,603,108
Total ..	122,225,029*	154,816,132	32,591,103*

* In several cases the unimproved value, together with the value of improvements, does not equal the capital value. This is chiefly owing to alterations made by Boards of Review.

In the figures for the North and South Islands the relative degree of increase is exhibited, and the rapid rate of progress in the North Island shows in strong contrast to that of the other Island. There has been great spread of settlement in the Wellington and Taranaki Districts.

CAPITAL VALUES.

	1891. £	1902. £	Increase. £
North Island ..	57,441,115	83,439,974	25,998,859
South Island ..	64,783,914	71,376,158	6,592,244
Totals ..	122,225,029	154,816,132	32,591,103

The increase for the North Island of £25,998,859 represents an advance of 45·26 per cent. on the value in 1891, and that of £6,592,244, for the South Island, 10·18 per cent. The increase for the whole colony, as shown previously, was £32,591,103, or 26·66 per cent.

The following statement gives the capital value of land and improvements in counties and boroughs as for 1891 and 1902.

CAPITAL VALUE OF LAND AND IMPROVEMENTS IN COUNTIES AND BOROUGHS.

	1891. £	1902. £
Counties	85,818,167	106,550,772
Boroughs	36,406,862	48,265,360
Totals	122,225,029	154,816,132

The increase in the capital value of land, with improvements, in counties for the eleven years is £20,732,605, or 24·16 per cent., while that for boroughs is £11,858,498, or 32·57 per cent.; but the value of property in boroughs was added to between 1891 and 1902 by the constitution of thirteen new boroughs, and that of the counties correspondingly reduced, so that the actual rate of increase in the value of country lands is higher than indicated by the above figures, and in urban lands considerably less.

Comparisons are given in detail in the tables which follow.

Counties, 1891 and 1902.

Table showing the Capital Value of Land, with Improvements (and distinguishing the Unimproved Value of Land), in each County in New Zealand according to the Results of the General Valuation made in 1891, and that of 1898 corrected to 1902 :—

* No valuation made. R Signifies valuation revised.

County.	Capital Value, Land and Improvements.		Unimproved Value of Land (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Mongonui	196,158	213,214	152,151	148,051
Whangaroa	63,825	77,107	41,379	48,622
Bay of Islands	365,069	354,354	247,612	223,210
Hokianga	422,365	411,808	365,957	341,493
Whangarei	523,420	554,905[a]	316,003	328,973[a]
Hobson	325,974	R 411,858	241,880	R 252,866
Otamatea	258,496	303,113	156,975	186,903
Rodney	293,235	305,677	173,313	150,675
Waitemata	632,012	R 687,797	388,568	R 381,142
Eden	2,002,677	R 2,645,894	991,380	R 1,413,884
Manukau	1,385,330	R 1,655,278	664,272	R 885,412
Islands (Great and Little Barrier)	55,284	149,011	42,574	79,634
Islands (Waiheke, &c.)	71,343		40,211	
Waikato	682,774	R 705,657	282,655	R 328,719
Raglan	357,941	437,962	280,945	300,417
Waipa	464,086	R 540,419	197,900	R 263,847
Kawhia	354,269	383,131	350,051	334,678
Coromandel	217,120	R 338,398	166,483	R 228,377
Thames	253,013	R 381,402	168,442	R 259,933
Ohinemuri	204,704	325,860[b]	164,182	190,609[b]
Tauranga	282,723	R 389,938	172,078	R 252,595
Piako	— 689,384	713,963[c]	427,889	371,973[c]
Rotorua	168,371	468,015	114,289	387,996
Whakatane	663,785	306,222[d]	548,221	258,658[d]
Opotiki	[e]	445,344	[e]	357,044
East Taupo	301,681	252,681	292,106	241,891
West Taupo	235,997	237,482	226,406	214,323
Islands (Mayor and Motiti)	*	5,780	*	3,696
Waiapu	472,548	R 994,440	341,062	R 568,247
Cook	1,885,856	R 3,208,440	1,175,712	R 1,920,530
Wairoa	1,101,072	R 1,382,194	786,032	R 913,462
Hawke's Bay	3,673,889	R 4,011,854	2,558,583	R 2,840,621
Waipawa	2,179,812	R 2,284,658[f]	1,249,695	R 1,389,388[f]
Woodville	[g]	520,272	[g]	263,688
Patangata	1,863,936	R 2,351,452	1,154,909	R 1,651,759

(a) Exclusive of Borough of Whangarei, which in 1891 formed part of county.
(b) Exclusive of Borough of Waihi, which in 1891 formed part of county.
(c) Exclusive of Borough of Te Aroha, which in 1891 formed part of county.
(d) Exclusive of Opotiki County, which in 1891 formed part of Whakatane County.
(e) Formed part of Whakatane County.
(f) Exclusive of Woodville County, which in 1891 formed part of Waipawa County, and exclusive of Borough of Dannevirke, which in 1891 also was included in county.
(g) Formed part of Waipawa.

COUNTIES: CAPITAL VALUE OF LAND, ETC., 1891 AND 1902—*continued.*

[* No valuation made. R Signifies valuation revised.]

County.	Capital Value, Land and Improvements.		Unimproved Value of Land (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Clifton	441,325	R 755,457	385,252	R 556,542
Taranaki	969,579	R 1,981,408	604,091	R 1,135,566
Stratford	560,345	R 1,400,087[h]	447,502	R 864 116[h]
Hawera	1,247,436	R 2,657,516[i]	807,887	R 1,784,331[i]
Patea	823,675	R 1,422,947	522,322	R 878,947
Waitotara	731,668	R 1,031,569	460,842	R 695,189
Wanganui	1,176,106	R 1,796,603	830,519	R 1,311,335
Rangitikei	1,475,473	1,960,707	870,091	1,146,725
Kiwitea	(j)	R 1,100,771	(j)	R 651,555
Pohangina	(j)	R 571,029	(j)	R 333,873
Manawatu	810,171	R 1,112,260	445,416	R 741,797
Oroua	2,268,854	R 1,162,426[k]	1,298,417	R 758,110[k]
Kairanga	(j)	R 1,194,001	(j)	R 801,090
Horowhenua	858,648	R 1,430,074	551,248	R 860,444
Islands (Kapiti and Mana)	*	10,484	*	9,378
Pahiatua	511,400	R 1,206,558[l]	331,634	R 666,657[l]
Akitio		R 497,232		R 303,895
Castlepoint ..	[m]	R 384,454	[m]	R 216,556
Eketahuna ..	1,831,209	360,382	1,057,393	178,934
Mauriceville ..		R 318,242		R 152,724
Masterton ..		R 1,784,903		R 1,047,175
Wairarapa South	1,872,035	853,041[n]	1,104,064	466,898[n]
Featherston	[o]	1,495,763	[o]	931,398
Hutt	1,030,745	R 1,600,041	520,005	R 845,137
Collingwood	323,910	360,119	223,376	192,224
Waimea	1,196,226	1,232,067[p]	740,668	747,502[p]
Sounds	171,095	276,735	124,480	169,387
Marlborough	1,837,632	R 2,015,534	1,344,120	R 1,471,061
Kaikoura	350,521	363,045	209,082	277,672
Buller	651,129	R 682,480	483,407	R 477,991
Inangahua	874,948	946,174	598,963	595,295
Grey	861,890	817,957	670,528	579,498
Westland	1,048,156	792,307	964,461	668,688
Cheviot	486,765	573,324	413,852	486,795
Amuri	921,221	R 854,256	762,518	R 642,823
Ashley	3,801,341	R 4,021,439	2,861,083	R 3,171,889
Selwyn	7,446,756	R 7,499,595[q]	4,897,419	R 5,262,181[q]
Akaroa	1,169,379	R 1,282,389	775,316	R 947,286

(h) Exclusive of Stratford Borough, which in 1891 formed part of county.
(i) Exclusive of Eltham, which in 1891 formed part of county.
(j) Formed part of Oroua County.
(k) Exclusive of Counties of Kiwitea, Pohangina, and Kairanga, which in 1891 formed part of county.
(l) Exclusive of Borough of Pahiatua, which in 1891 formed part of county.
(m) Late Wairarapa North County.
(n) Exclusive of Featherston County, which in 1891 formed part of county.
(o) Formed part of Wairarapa South.
(p) Exclusive of Motueka Borough, which in 1891 formed part of county.
(q) Exclusive of Linwood, Woolston, and New Brighton Boroughs, which in 1891 formed part of county.

COUNTIES: CAPITAL VALUE OF LAND, ETC., 1891 AND 1902—*continued.*

[* No valuation made. R Signifies valuation revised.]

County.	Capital Value, Land and Improvements.		Unimproved Value of Land (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Ashburton	3,630,383	R 4,198,600	2,691,466	R 3,253,068
Geraldine	3,257,696	R 1,816,124(r)	2,316,183	R 1,406,171(r)
Levels	(s)	R 1,544,805	(s)	R 1,132,189
Mackenzie	736,021	799,755	589,528	646,091
Waimate	2,462,433	R 2,886,128	1,968,587	R 2,401,790
Waitaki	2,709,379	2,611,481	2,060,640	2,058,436
Maniototo	449,650	571,313	358,342	377,658
Waihemo	417,887	417,337	277,792	276,200
Waikouaiti	602,015	600,683	309,077	323,919
Peninsula	414,146	430,177	193,301	239,530
Taieri	1,330,718	R 1,464,657	931,554	R 1,039,569
Tuapeka	938,701	872,261	642,394	580,982
Bruce	957,438	R 996,207	600,771	R 667,823
Clutha	1,151,046	R 1,238,933	772,352	R 827,716
Vincent	791,595	R 518,603	637,287	R 327,258
Lake	382,722	R 346,429	274,791	R 252,973
Fiord	*	143,584	*	137,209
Wallace	1,364,016	R 1,907,704	943,777	R 1,310,484
Southland	3,739,513	R 4,746,470(t)	2,446,830	R 3,305,409(t)
Stewart *Island*	85,021	159,690	79,690	134,378
Islands (Antipodes, &c.) ..	*	13,875	*	13,875

(r) Exclusive of County of Levels and Temuka Borough, which in 1891 formed part of county.
(s) Formed part of County of Geraldine.
(t) Exclusive of Borough of Mataura, which in 1891 formed part of county.

BOROUGHS, 1891 AND 1902.

TABLE showing the Capital Value of Land, with Improvements (and distinguishing the Unimproved Value of Land), in each Borough in New Zealand according to the Results of the General Valuation made in 1891, and that of 1898 revised to 1902.

[R Signifies valuation revised.]

Borough.	Capital Value, Land and Improvements.		Unimproved Value of Land, (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Whangarei	(s)	R 134,553	(s)	R 56,811
Birkenhead	77,532	94,185	42,333	46,611
Devonport	407,333	471,867	163,468	199,325
Auckland	4,934,288	5,676,695	2 471,496	2,980,860
Parnell	366,098	399,480	138,775	185,278
Newmarket	182,353	175,657	82,327	82,374
Grey Lynn (late Newton) ..	222,355	R 419,630	135,607	R 196,403
Onehunga	250,634	267,123	111,406	130,359
Hamilton	90,142	R 141,295	44,584	R 68,440

BOROUGHS: CAPITAL VALUE OF LAND, ETC., 1891 AND 1892—*continued.*

[R signifies valuation revised.]

Borough.	Capital Value, Land and Improvements.		Unimproved Value of Land (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Cambridge	70,279	79,519	25,521	26,268
Thames	227,171	294,695	76,547	114,703
Tauranga	63,026	87,301	25,153	29,379
Te Aroha	(b)	56,925	(b)	25,520
Waihi	(c)	186,925	(c)	63,942
Gisborne	317,989	R515,989	148,511	R311,511
Napier	1,275,853	1,263,227	667,157	585,854
Hastings	372,458	497,862	230,592	279,997
Dannevirke	(d)	147,389	(d)	78,605
Woodville	102,226	98,474	57,852	44,081
New Plymouth	341,117	R964,736	165,621	R616,768
Hawera	84,834	220,115	37,914	98,863
Patea	43,378	R64,300	12,055	R22,009
Stratford	(e)	R262,952	(e)	R160,261
Eltham	(f)	343,132	(f)	171,302
Wanganui	543,403	813,205	290,321	461,743
Marton	83,915	112,075	33,736	42,406
Feilding	146,884	R300,150	68,199	R157,418
Palmerston North ..	489,618	R756,570	310,293	R351,253
Foxton	85,743	100,051	39,755	42,412
Onslow	144,053	R260,208	70,803	R146,954
Karori	118,728	R243,517	74,595	R82,943
Wellington	5,865,778	R9,056,588	3,440,182	R5,102,053
Melrose	203,517	R521,574	129,429	R332,688
Pahiatua	(g)	R148,875	(g)	R71,737
Masterton	356,860	R635,582	159,861	R339,458
Carterton	88,650	111,106	31,315	46,735
Greytown	115,649	130,036	34,095	48,456
Lower Hutt	244,075	R364,549	159,178	R228,898
Petone	268,358	R478,377	145,221	R247,471
Richmond	84,285	85,380	43,375	45,153
Nelson	942,370	833,562	389,397	342,029
Picton	88,195	R109,547	41,189	R52,370
Blenheim	378,943	R388,762	167,481	R170,690
Motueka	(h)	106,213	(h)	59,377
Westport	166,987	189,916	57,782	76,756
Greymouth	299,077	R369,899	114,543	R97,426
Brunner	115,892	69,661(i)	16,166	11,529(i)
Kumara	33,565	36,721	6,945	5,461
Hokitika	102,708	150,091	18,054	55,580
Ross	16,961	R20,975	5,250	R5,382
Rangiora	158,017	175,292	71,161	73,011
Kaiapoi	134,055	154,281	47,023	48,200
St. Albans	524,822	658,253	284,938	271,805
Christchurch	3,403,566	3,364,921	1,820,770	1,605,137
Sydenham	821,060	788,735(k)	333,876	284,718(k)
Linwood	(i)	468,560	(i)	169,582
Woolston	(i)	197,716	(i)	94,798
New Brighton	(i)	94,719	(i)	45,997
Sumner	102,145	R130,973	60,246	R66,737

BOROUGHS: CAPITAL VALUE OF LAND, ETC., 1891 AND 1892—*continued.*

[R Signifies valuation revised.]

Borough.	Capital Value, Land and Improvements.		Unimproved Value of Land (included in previous columns).	
	As in Year 1891.	As in 1898, revised to 31st March, 1902.	As in Year 1891.	As in 1898, revised to 31st March, 1902.
	£	£	£	£
Lyttelton	851,730	841,719	150,490	238,274
Akaroa	49,407	50,968	19,628	17,705
Ashburton	223,091	244,027	90,733	94,217
Temuka	(j)	96,120	(j)	31,478
Timaru	442,830	539,659	151,661	188,212
Waimate	75,399	R 139,755	18,759	R 51,789
Oamaru	612,571	453,576	279,113	156,838
Hampden	13,195	19,436	5,229	6,213
Naseby	24,186	33,336	2,440	4,166
Palmerston	51,182	51,639	16,771	11,077
Hawksbury	45,716	49,533	19,823	21,500
Port Chalmers	200,043	235,238	60,946	61,456
West Harbour	137,015	134,904	68,240	61,595
North-East Valley ..	276,835	273,941	130,271	106,294
Maori Hill	142,890	R 198,419	67,348	R 85,933
Roslyn	360,962	R 577,967	169,610	R 246,936
Mornington	284,875	325,313	125,414	113,898
Dunedin	4,193,422	R 4,823,403	2,124,467	R 2,256,085
Caversham	466,074	497,645	217,158	189,187
South Dunedin	223,534	344,883	82,609	103,751
St. Kilda	118,477	191,881	76,842	97,793
Green Island	86,962	R 39,396	13,585	R 11,234
Mosgiel	122,625	R 157,173	53,441	R 65,200
Roxburgh	20,123	30,535	3,167	3,438
Lawrence	79,066	97,115	18,584	23,126
Tapanui	16,155	16,572	2,575	2,550
Milton	76,207	113,291	14,012	28,723
Balclutha	53,210	77,009	14,547	24,693
Kaitangata	54,976	62,237	21,133	28,081
Arrowtown	24,586	26,547	5,012	4,722
Queenstown	65,153	66,261	13,524	12,227
Cromwell	22,168	34,818	4,658	10,782
Alexandra	13,578	31,089	2,955	9,287
Gore	142,708	R 269,189	66,171	R 104,833
Mataura	(m)	R 119,608	(m)	R 49,011
Winton	20,195	R 44,168	7,965	R 19,613
Gladstone	26,541	34,057	13,825	15,991
Avenal	15,269	23,488	6,687	8,401
North Invercargill ..	28,293	40,990	15,640	17,221
East Invercargill	42,996	52,487	18,385	17,380
Invercargill	959,140	R 1,194,125	517,879	R 499,683
South Invercargill ..	79,526	97,249	42,813	37,919
Riverton	59,626	58,566	22,024	15,161
Campbelltown	97,380	165,412	49,430	86,429

(a) Formed part of Whangarei County. (b) Formed part of Piako County. (c) Formed part of Ohinemuri County. (d) Formed part of Waipawa County. (e) Formed part of Stratford County. (f) Formed part of Hawera County. (g) Formed part of Pahiatua County. (h) Formed part of Waimea County. (i) Formed part of Selwyn County. (j) Formed part of Geraldine County. (k) Value of railway-station (£80,000) included in 1891, excluded in 1898. (l) Value of coal-mines excluded. (m) Formed part of Southland County.

SECTION XXIV.—CROWN LANDS.

A SUMMARY of the transactions during the year ended 31st March, 1902, will be found in the following table, which shows under all descriptions of tenure the number of selectors and the area selected :—

Nature and Tenure of Lands selected during the Year ended the 31st March, 1902.	Selectors.	Area. A. R. P.	Number of Purchasers or Selectors.	Area. A. R. P.
Town lands sold for cash	156	116 1 16	488	27,288 0 8
Suburban lands sold for cash ...	95	432 2 1		
Rural lands sold for cash	237	26,739 0 31		
Deferred payment	...	...	1	52 0 0
Perpetual lease	...	...	1	10 0 0
Occupation with right of purchase ...	...	...	447	128,892 3 9
Lease in perpetuity	...	...	241	65,468 1 29
Agricultural lease	...	...	1	27 3 0
Village settlement, cash	...	...	21	9 3 9
" lease in perpetuity ...	...	...	32	455 1 28
" occupation with right of purchase ...			1	1 0 1
Village-homestead special settlement ...	...	...	30	469 1 25
Improved-farm special settlement (lease in perpetuity and occupation with right of purchase) ...	...	...	9	1,617 3 26
Occupation leases, Mining Act	...	...	71	2,706 3 10
Small-grazing-runs	...	...	25	96,708 1 18
Pastoral runs	...	...	54	579,050 1 26
Miscellaneous leases and licenses	...	...	440	113,433 2 7
Cheviot Estate—				
Lease in perpetuity	...	...	3	1,422 3 0
Land for Settlements Acts—				
Cash lands	...	...	1	2 0
Lease in perpetuity	...	...	257	49,235 1 3
Lease in perpetuity, village	...	...	1	0 1 0
Small grazing-runs	..	..	11	16,239 2 0
Pastoral runs	...	...	2	953 2 38
Miscellaneous	...	...	22	17,242 1 30
Endowments—				
Occupation leases, Mining Act	...	...	7	136 3 29
Lease in perpetuity	...	...	1	319 0 25
Small grazing-runs	...	...	12	15,112 1 25
Totals			*2,179	*1,109,655 0 26

* Including twenty endowments: area, 15,568 acres 1 rood 39 perches.

Particulars of the number of Crown tenants at present holding lands under the several tenures, together with the yearly rental payable, are given in the next statement.

STATEMENT showing the TOTAL NUMBER OF CROWN TENANTS, with Area selected or held, and the Yearly Rent payable, as on the 31st March, 1902.

Tenures.	Total Number of Tenants.	Total Area held by such Tenants.	Total Yearly Rental or Instalment payable.
		A. R. P.	£ s. d.
ORDINARY CROWN LANDS.			
Deferred payment	612	96,885 0 37	4,554 3 0
Perpetual lease	980	204,841 2 5	7,742 17 8
Occupation with right of purchase	3,477	935,286 3 1	34,733 7 0
Lease in perpetuity	3,280	956,590 0 37	30,462 13 8
Agricultural lease	17	528 3 5	30 6 3
Homestead	15	1,636 1 10	...
Mining Districts Land Occupation Act	339	14,259 0 12	839 9 1
Village settlements—			
Deferred payment	25	477 3 6	47 1 2
Perpetual lease	165	2,730 1 29	397 10 8
Occupation with right of purchase	38	30 1 3	13 1 2
Lease in perpetuity	441	6,324 0 31	599 8 8
Village-homestead special settlements—			
Perpetual lease	430	8,955 1 39	1,412 18 4
Lease in perpetuity	599	13,645 0 25	1,786 9 7
Special settlement associations—			
Deferred payment	16	1,076 1 10	19 6 6
Perpetual lease	22	2,081 3 31	144 7 2
Lease in perpetuity	647	120,346 3 2	6,068 10 7
Improved-farm special settlements—	493	53,906 1 22	3,204 19 2
Small grazing-runs	606	1,219,982 2 27	25,252 18 8
Pastoral runs	738	11,459,556 3 19	74,717 8 1
Miscellaneous leases	2,229	450,668 2 34	9,888 17 8
Totals	15,169	15,547,210 3 25	201,915 14 1
CHEVIOT ESTATE—			
Lease in perpetuity	104	24,410 1 9	6,502 15 2
Village-homestead special settlement	80	2,480 1 0	873 0 4
Grazing-farms	40	45,971 0 9	6,022 0 0
Pastoral runs	1	1,642 0 0	193 3 8
Miscellaneous	67	1,659 1 23	296 1 2
LAND FOR SETTLEMENTS ACTS—			
Lease in perpetuity	1,845	294,242 1 5	89,422 18 9
Lease in perpetuity, village	47	429 1 12	323 16 6
Special-settlement associations	11	2,114 1 9	162 7 8
Small grazing-runs	44	69,695 3 37	10,254 7 2
Pastoral runs	2	953 3 38	121 13 0
Miscellaneous	90	19,253 2 17	896 15 5
THERMAL-SPRINGS (ROTORUA)	247	5,754 3 33	1,652 1 4
Grand totals	17,747	16,015,818 0 17	319,236 14 3
Endowments	611	159,307 3 39	7,775 15 1
Native townships	163	621 0 27	734 14 8

Tables I. and II., which follow, exhibit the acreage of land *taken up for settlement*, and the number of holdings under each description of tenure. The lands held under pastoral license and miscellaneous leases, such as for timber and flax-cutting, coal-mining, &c., *are not included* in these tables. Tables III. and IV. show the total acreage taken up year by year since 1892 in each land district, and the number of holdings grouped according to size, the areas varying from less than one acre in extent to 1,000 acres and over.

The forfeitures and surrenders in respect of the lands taken up for settlement (excluding, as already remarked, pastoral and miscellaneous leases) for the last six years were :—

1896-97	815 holdings	228,978 acres.	1899-1900	510 holdings	164,003 acres.
1897-98	658 "	130,380 "	1900-1901	354 "	106,690 "
1898-99	567 "	180,957 "	1901-1902	192 "	75,868 "

Forfeited and surrendered lands are again thrown open for selection as soon as possible, and in the majority of cases are taken up again by fresh selectors within a short time.

A full description of the various tenures under which land is dealt with in the colony is given in the article entitled "The Land System of New Zealand," in Part III. of this book.

I.—Comparative Statement showing Acreage of Lands selected under Settlement Conditions (excluding Pastoral Runs and Miscellaneous Leases and Licenses) during Each of the Years ended 31st March, 1892-1902.

—	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cash lands	40,501	36,327	34,999	38,695	26,575	28,485	22,525	37,400	23,936	58,700	27,290
Deferred payments	40,467	21,084	12,669	5,454	456	..	..	13	..	..	52
Perpetual lease and small areas ..	282,547	122,558	3,854	1,263	1,427	9,106	651	640	624	2,499	10
Occupation with right of purchase ..	..	54,271	108,133	75,478	84,968	59,648	81,414	109,950	117,771	262,729	128,893
Lease in perpetuity	..	55,320	179,993	91,799	122,350	104,927	117,938	159,415	153,531	144,208	116,445
Agricultural lease	90	194	365	45	36	13	258	114	70	23	28
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	..	..	..	..	2,931	2,817	1,285	1,449	2,295	2,123	2,644
Village settlement—											
Cash	429	528	2	24	9	4	1	30	4	22	10
Deferred payment	182	391	..	..	..	..	..	..	..	..	..
Perpetual lease	893	2,636	..	..	..	..	..	..	..	..	..
Occupation with right of purchase	..	..	1	23	2	4	2	2	1	..	1
Lease in perpetuity	..	4	3,953	4,050	3,365	1,317	1,426	2,115	1,762	1,082	456
Village-homestead special settlement	2,213	494	2,550	2,743	793	360	42	134	31	376	469
Special-settlement associations ..	1,923*	157,381†	68,852†	†51,346	†44,237	28,084†	†442	†607	†2	..	..
Homestead	1,010	38	..	..	..	..	..	..	..	..	..
Special-settlement improved farms ..	..	..	..	9,731	28,348	4,882	9,007	4,823	7,393	1,936	1,618
Small grazing-runs and grazing-farms	159,465	92,927	252,693	117,846	46,407	68,934	149,458	77,632	155,109	86,076	128,060
Totals	529,720	544,153	668,064	398,497	361,904	308,581	384,449	394,324	462,529	559,774	405,976

* Perpetual lease. † Lease in perpetuity.

Note.—The forfeitures and surrenders for the last six of the years dealt with in the table were—for the year 1896-97, 228,978 acres; 1897-98, 130,380 acres; 1898-99, 160,957 acres; 1899-1900, 164,003 acres; 1900-1901, 106,690 acres; and for 1901-1902, 75,368 acres. But it must not be supposed that these relate to the acreages taken up during the same years; on the contrary, forfeitures may have their origin in selections of long standing and various dates.

II.—Comparative Statement showing Number of Selectors of Land under Settlement Conditions (excluding Pastoral Runs and Miscellaneous Leases and Licenses) during each of the Years ended 31st March, 1892–1902.

—	1891-2.	1892-3.	1893-4.	1894-5.	1895-6.	1896-7.	1897-8.	1898-9.	1899-1900.	1900-1901.	1901-1902.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
For cash	493	552	497	392	476	388	272	534	491	363	489
Deferred payments	223	169	96	47	6	..	..	1	..	..	1
Perpetual lease and small areas	824	385	17	3	7	19	2	1	2	3	1
Occupation with right of purchase	..	161	461	398	431	277	380	458	395	673	447
Lease in perpetuity	..	126	612	372	696	659	599	675	647	489	502
Agricultural lease	2	4	5	2	3	2	5	2	3	1	1
Occupation lease under "The Mining Districts Land Occupation Act, 1894"	..	..	..	..	69	48	23	31	64	53	78
Village settlement—											
Cash	88	75	3	23	16	4	2	21	6	35	21
Deferred payment	23	29	..	..	..	..	..	..	..	..	..
Perpetual lease	59	164	..	..	..	..	..	..	..	..	..
Occupation with right of purchase	..	..	5	30	3	4	2	3	3	..	1
Lease in perpetuity	..	2	203	232	193	102	92	106	80	97	33
Village-homestead special settlement	140	33	118	60	19	18	9	12	6	7	30
Special-settlement associations	13	838	290	262	238	142	5	5	1	..	..
Homestead	8	1	..	..	..	..	..	..	..	..	..
Improved-farm special settlement	..	..	..	107	315	45	77	64	41	13	9
Small grazing-runs and grazing-farms	80	39	142	60	32	27	71	40	64	35	48
Totals	1,953	2,578	2,454	1,988	2,504	1,735	1,539	1,953	1,803	1,769	1,661

Note.—The forfeitures and surrenders for the last six of the years dealt with in the table were—for the year 1896-97, 815 holdings; 1897-98, 658 holdings; 1898-99, 567 holdings; 1899-1900, 510 holdings; 1900-1901, 354 holdings; and in 1901-1902, 192 holdings. See note to previous table as to the origin of these failures.

III.—Lands taken up under Settlement Conditions during each of the Years ended 31st March, 1893-1902 (exclusive of Pastoral Runs and Miscellaneous Leases and Licenses).*

Land District.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland	115,454	134,992	99,313	67,831	49,522	56,295	90,160	78,677	201,355	108,761
Hawke's Bay	49,831	24,356	20,141	16,353	22,858	19,876	36,222	36,451	90,625	71,902
Taranaki	49,064	13,954	35,113	55,850	22,002	16,786	18,867	54,960	71,000	23,942
Wellington	156,297	84,871	49,586	79,478	63,801	48,909	63,746	41,387	48,530	14,301
Nelson	17,797	36,739	34,906	19,421	14,462	13,600	18,673	10,211	18,918	29,520
Marlborough	8,055	8,227	18,353	15,858	20,858	54,581	51,973	74,311	33,063	64,624
Canterbury	12,777	94,861	33,744	14,827	22,654	75,041	52,839	34,218	20,744	11,981
Westland	162	1,346	1,826	1,765	3,865	437	352	792	709	27,214
Otago	90,043	159,050	80,439	70,238	79,212	77,345	40,599	68,436	49,901	29,232
Southland	44,673	109,668	25,076	20,283	9,347	21,579	20,893	63,086	24,929	24,499
Totals.. ..	544,153	668,064	398,497	361,904	308,581	384,449	394,324	462,529	559,774	405,976

IV.—Holdings taken up under Settlement Conditions during each of the Years ended 31st March, 1893-1902 (exclusive of Pastoral Runs and Miscellaneous Leases and Licenses), classified according to Size.

Size.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 1 acre	154	176	256	259	154	103	293	345	158	195
1 to 50 acres	727	739	696	719	588	496	571	501	466	569
51 to 250 acres	1,253	933	757	1,198	709	616	633	492	522	475
251 to 500 acres	264	341	169	232	178	197	277	262	333	245
501 to 1,000 acres	104	150	70	70	84	63	128	116	181	113
1,001 acres and upwards ..	76	115	40	26	22	64	51	87	109	64
Totals.. ..	2,578	2,454	1,988	2,504	1,735	1,539	1,953	1,803	1,769	1,661

* See notes as to forfeitures and surrenders on previous tables.

The following is a statement of the gross amounts collected by Receivers of Land Revenue for the years 1900-1901 and 1901-1902 :—

	1900-1901. £ s. d.	1901-1902. £ s. d.
Territorial revenue	270,203 5 9	249,619 1 6
Lands for settlement	72,781 8 2	90,053 5 6
Cheviot Estate	14,166 7 4	14,061 0 8
State forests	14,915 5 3	17,188 11 5
North Island Main Trunk Railway	9,449 7 8	6,670 14 5
Thermal springs	1,650 6 11	414 8 6
Rotorua Town Council	..	1,094 2 4
Lakes Ellesmere and Forsyth ..	1,787 13 9	1,615 12 2
Crown-grant fees	915 17 10	914 12 5
Native townships	505 11 9	310 8 1
Mining district land occupation ..	..	641 12 4
Miscellaneous	2,433 7 10	1,753 17 3
Mount Cook Hermitage	358 16 6	190 5 6
Hanmer Sanatorium	1,139 19 10	1,344 1 2
Government loans to local bodies..	21,157 5 2	21,420 15 7
Endowments	17,724 16 10	17,638 9 8
Survey vote	2,149 2 8	2,207 16 1
Totals	£431,338 13 3	£427,138 14 7

SECTION XXV.—LAND FOR SETTLEMENTS.

A FULL description is given, in a special article belonging to Section 1, Part III., of the objects and method of the Land for Settlements Acts, under which the acquirement by Government is authorised, through purchase from private owners, of properties for subdivision into small farms to meet the want felt of Crown lands for disposal in places where they are specially in demand.

The report of the Chairman of the Board of Land Purchase Commissioners on the transactions for the twelve months ended the 31st March, 1902, states:—

The number of properties offered during the year was 110, containing 452,518 acres.

The recommendations of the Board were accepted by the Government for 29 estates, and purchases were completed of 24 properties, containing 82,887 acres 1 rood 31 perches, for which £406,576 11s. 11d. was paid.

The names of the estates paid for during the year are: Cradock, Hetana, Kitchener, Methuen, Plumer, and Waari, in Auckland; Forest Gate, Kumeroa, and Mangatoro in Hawke's Bay; Toka-ora, in Taranaki; Langdale, Mangawhata, and Epuni in Wellington; Kohika, Kaimahi, Kapuatohe, Lyndon No. 2, Maytown, Puhuka, Rainoliff, Rapuwai, and Rural Section 36278, in Canterbury; and Glenham and Ringway, in Southland.

Since the 1st April, 1902, other estates have been acquired, viz.: Te Reinga, in Hawke's Bay; Linton, in Wellington; Patriarch, Raglan, and Manuka Island, in Marlborough; Kokotahi, in Westland; Eccleston, and Mead, in Canterbury; Windsor Park, and Windsor Park No. 2, in Otago. Negotiations are proceeding for the Longbush and Table-lands Runs, 27,000 acres, in Wellington; the Flaxbourne Estate of 55,000 acres, the Upton Downs, and Weld's Hill Exchanges, in Marlborough; and the Levels Estate in Canterbury, containing 43,000 acres.

Requisitions for the compulsory taking of the following estates have been gazetted and served, viz.: Longbush and Table-lands in Wellington, containing 27,000 acres, and Kokatahi (Diedrich's) in Westland, containing 4,993 acres.

With regard to Millburne and Mount Vernon, which are also to be taken compulsorily, the requisition has to be served on the Millburne trustees in London, and, as they have 150 days in which to respond, the Arbitration Court cannot sit until October or November next. The Mount Vernon case is deferred until both the Hawke's Bay cases can be taken together.

Negotiations for the purchase by agreement of a considerable portion of Longbush and Table-lands are nearly complete, and the balance will go before a Court of Arbitration as soon as a date can be settled.

The owner of the Kokatahi property having asserted his right to retain the maximum area allowed, an agreement was come to whereby an area of 1,911 acres was acquired at a reasonable price, and the action taking the remainder was adjourned.

For workmen's hamlets there were eight properties purchased during the year, viz.: Cradock, Hetana, Kitchener, Methuen, Plumer, and Waari, near Auckland; Kaimahi and Kapuatohe, near Christchurch; and Puhuka, near Timaru.

The transactions under the Land for Settlements Act, as disclosed in the "Statement of Receipts and Expenditure" for the year which ended on the 31st March, 1902, published in the *New Zealand Gazette* of the 22nd May, show that the rents received from 386,530 acres of lands leased amount to £90,053 5s. 6d., and the interest paid was £66,834 18s. 6d., giving a profit for the year of £23,218 7s.

SUMMARY OF ALL LANDS OFFERED TO GOVERNMENT UNDER "THE LAND FOR SETTLEMENTS CONSOLIDATION ACT, 1900," AND HOW DEALT WITH, FROM 1ST APRIL, 1901, TO 31ST MARCH, 1902.

Land District where Land situated.	Number of Estates offered.	Area offered.	Area declined without going to Board.	Area not recommended by Board.	Area recommended by Board.	Area under Consideration.	Area withdrawn.	Total.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland	19	183,711	..	65,762	1,088	116,861	..	183,711
Hawke's Bay	3	14,938	..	..	4,850	5,865	4,223	14,938
Taranaki	4	5,823	..	1,860	1,505	814	1,644	5,823
Wellington	29	47,658	..	11,211	11,480	22,313	2,654	47,658
Nelson	2	6,002	..	6,002	..	..	..	6,002
Westland	1	4,993	..	..	4,993	..	..	4,993
Canterbury	35	86,948	4,022	12,575	40,604	29,075	672	86,948
Otago	6	5,930	..	..	3,810	2,120	..	5,930
Southland	11	96,515	..	7,069	13,808	71,610	4,028	96,515
Total	110	452,518	4,022	104,479	82,138	248,658	13,221	452,518

SUMMARY OF ESTATES ACQUIRED UP TO THE 31ST MARCH, 1902, AND AMOUNTS OF PURCHASE-MONEY.

Name of Land District.	No. of Estates acquired before 31st March, 1901.	Areas acquired before 31st March, 1901.	No. of Estates acquired from 1st April, 1901, to 31st March, 1902.	Area acquired from 1st April, 1901, to 31st March, 1902.	Total Numbers of Estates to 31st March, 1902.	Total Area to 31st March, 1902.	Amounts of Purchase-money to 31st March, 1902.
		A. R. P.		A. R. P.		A. R. P.	£ s. d.
Auckland ..	6	35,869 2 14	6	1,085 3 21	12	36,955 1 35	101,794 5 2
Hawke's Bay ..	8	39,479 3 28	3	32,003 3 12	11	71,483 3 0	425,553 7 3
Taranaki ..	..	..	1	1,505 2 8	1	1,505 2 8	31,616 11 0
Wellington ..	5	5,026 1 5	3	10,746 2 10	8	15,772 3 15	121,346 6 10
Marlborough ..	7	68,135 2 0	..	..	7	68,135 2 0	165,292 15 9
Westland ..	1	3,230 1 6	..	..	1	3,230 1 6	3,634 1 6
Canterbury ..	39	132,688 2 27	9	23,807 2 2	48	156,496 0 29	843,564 15 1
Otago	14	60,396 3 15	..	..	14	60,396 3 15	336,417 5 11
Southland ..	3	20,635 1 0	2	13,738 0 18	5	34,373 1 18	88,132 15 9
Totals ..	83	365,462 1 15	24	82,887 1 31	107	448,349 3 6	2,117,352 4 3

The original Land for Settlements Act was passed in October, 1892, and the first land offered to the public in December, 1893.

The total purchase-money paid for the 107 estates, containing 448,349 acres, acquired to 31st March, 1902, amounts to £2,117,352 4s. 3d. To this has to be added preliminary expenses, and cost of roading and preparing for settlement, £111,776 5s. 11d., making a total cost of £2,229,128 10s. 2d.

Interest and expenses on issue of debentures amount to £213,828 4s. 5d.

The total revenue to the 31st March was £303,105 15s. 11d., the surplus or profit to date is therefore £89,377 11s. 6d.

The sum at the credit of the account is stated to be £382,692 6s. 3d., which, with the amount which may be raised, and rents, is sufficient to meet the operations of the current year.

The Secretary for Crown Lands and Surveyor-General's report to the Hon. the Minister of Lands on the condition and settlement of the lands acquired and handed over to his department under the above-mentioned Acts gives the particulars of the estates offered for selection as follows:—

During the year eighteen estates, containing 85,023 acres, were, after survey and valuation, duly advertised by public advertisement, and distribution of plans and pamphlets, as open in allotments for selection at fixed upset rentals (5 per cent. on capital value), on the lease-in-perpetuity system, conflicting applications being determined by ballot.

Though ten other estates were acquired during the financial year, there was not time to carry out the necessary surveys, &c., and place them on the market before the 31st March. These comprised the Cradock, Hetana, Kitchener, Methuen, Plumer, Waari Workmen's Homes in the Auckland Land District; Forest Gate and Kumeroa Estates in Hawke's Bay; the Maungaraki Settlement (a further portion) in Wellington; and the Maytown and Lyndon No. 2 Estates in Canterbury.

The following table shows the estates offered for the first time, and how they were disposed of:—

ESTATES OFFERED for SELECTION during the Year ended 31st March, 1902, under "The Land for Settlements Consolidation Act, 1900."

Land District, and Name of Estate.	Area of Estate.	Number of Selectors.	Area unselected 31st March, 1902.	Annual Rental payable on Lands leased.	Date of Opening.
	A. R. P.		A. R. P.	£ s. d.	
Hawke's Bay—					
Hatuma	26,522 3 20	59	709 2 0	7,627 3 10	25 April, 1901.
Manga-a-toro ...	19,581 3 12	21	4,348 0 0	3,921 13 10	21 Jan., 1902.
Taranaki—					
Tokaora	1,505 2 8	6	845 0 22	670 19 10	20 Nov., 1901.
Wellington—			...	826 10 0	14 May, 1901.
Mangawhata ...	1,240 2 36	7	2 1 24	480 5 8	25 June, 1901.
Epuni Hamlet ...	100 3 14	42	194 2 22	125 17 2	20 Dec., 1901.
Maungaraki ...	470 3 4	10	...	300 0 0	1 April, 1901.
Marlborough—					
North Bank ...	12,895 0 0	1	...	1,451 14 2	13 May, 1901.
Canterbury—		16	11 0 23	122 5 8	25 June, 1901.
Kohika	3,864 1 10	12	...	85 3 10	25 June, 1901.
Tarawahi	31 3 0	1	14 0 0	36 9 4	29 July, 1901.
Rainciff	745 2 0	6	6 1 14	236 9 10	15 Oct., 1901.
Puhuka	39 2 7	12	19 2 0	82 19 2	15 Oct., 1901.
Kaimahi	100 2 1	4	...	25 1 8	14 Nov., 1901.
Kapuatohe ...	49 3 37	1	...	480 16 8	9 Dec., 1901.
R.S. 36278	618 2 0	5	...	170 3 6	18 Dec., 1901.
Rapuwai	2,247 2 11	10	...	460 9 0	20 Dec., 1901.
Otago—			...	591 5 2	21 March, 1902
Earnscleugh ...	1,269 3 5	7	8,943 1 24		
Southland—		10			
Ringway	2,253 2 8			17,695 8 4	
Glenham	11,454 2 10				
Totals ...	85,023 0 33	230	15,094 0 9		

Of the eighteen estates opened for selection, 69,929 acres, in 230 holdings, were leased, including the North Bank property, which was let temporarily as one run, in order that gold-miners might be allowed to continue their operations.

The Hatuma, Forest Gate, and Kumeroa properties were acquired under the compulsory provisions of the Land for Settlements Act, which method has not resulted in low valuations or capital values as finally determined. The 709¼ acres undisposed of in the former was not available for disposal till recently, and is now advertised for lease.

The 4,348 acres unselected in the Manga-a-toro Settlement includes two small grazing-runs.

The balance of Tokaora Settlement is expected to be quitted shortly. Maungaraki is already sold.

The estates, &c., leased in each district under the Land for Settlements Acts to the 31st March, 1902, are next shown:—

Name of Estate.	Area acquired. A.	R.	P.
Auckland—			
Fencourt	7,105	3	5
Karapiro	2,276	3	9
Okauia	5,920	0	0
Opouriao	7,604	0	0
Rangiatea	4,004	0	0
Whitehall	8,959	0	0
	35,869	2	14
Hawke's Bay—			
Elsthorpe	9,740	0	0
Hatuma	26,522	3	20
Mahora	1,133	3	0
Mangatoro	19,581	3	12
Pouparae	337	3	4
Raureka	427	2	0
Tomoana	111	3	38
Waimarie	430	2	10
Willows	775	1	36
	59,081	3	0
Taranaki—			
Tokaora	1,505	2	8
Wellington—			
Aorangi	1,785	0	0
Epuni Hamlet	100	3	14
Langdale	9,405	0	0
Mangawhata	1,240	2	36
Maungaraki	470	3	4
Okakea	1,745	1	30
Paparangi	322	3	32
Te Matua	702	0	19
	15,772	3	15
Marlborough—			
Blind River	5,507	0	0
North Bank	12,895	0	0
Omaka	3,898	0	0
Puhipuhi	320	0	0
Richmond Brook	5,854	0	0
Starborough	35,906	0	0
Waipapa	3,755	2	0
	68,135	2	0
Westland—			
Poerua	3,230	1	6
Canterbury—			
Albury	19,539	1	24
Ashley Gorge	1,165	3	6
Braco	27	2	4
Epworth	21	0	3
Hekeao	2,254	2	11
Highbank	9,121	3	8

Name of Estate.	Area acquired. A.	R.	P.
Canterbury—*continued.*			
Horsley Down	3,982	3	35
Kaimahi	100	2	1
Kapua	574	1	22
Kapuatohe	49	3	37
Kereta	105	2	29
Kohika	3,864	1	10
Lyndon	4,243	3	28
Marawiti	2,028	2	33
Omihi Valley	20	0	0
Orakipaoa	384	0	31
Otarakaro	39	3	9
Otaio	373	3	14
Pareora	620	2	13
Patoa	4,535	3	14
Pawaho	52	0	18
Papaka	1,561	2	25
Pareora No. 2	8,132	0	31
Puhuka	39	2	7
Punaroa	7,029	3	5
Raincliff	745	2	0
Rakitairi	3,526	1	26
Rapuwai	2,247	2	11
Rautawiri	113	0	7
R.S. 1862	20	0	0
" 2682 (part)	6	2	4
" 36469	154	3	2
" 36056 and 36057	58	0	16
" 36228	100	3	23
" 36231	98	3	30
" 36278	618	2	0
Roimata	48	3	27
Rosebrook	600	1	8
Studholme Junction	109	0	7
Takitu	9,713	0	37
Tamai	41	0	28
Tarawahi	31	3	0
The Peaks	2,811	0	9
Waipi	1,124	2	36
Waikakahi	48,262	2	34
Wharenui	73	1	10
	140,376	2	13
Otago—			
Ardgowan	4,268	3	28
Barnego	7,078	2	1
Earnscleugh	1,269	3	5
Elderslie	11,618	2	4
Janefield	147	0	2
Maerewhenua	11,163	3	31
Makareao	2,383	0	4
Makareao Extension	2,573	3	6
Momona	224	1	16
Pomahaka	7,478	2	2
Puketapu	509	0	6

Estates, &c., Leased in each District under the Land for Settlements Acts to the 31st March, 1902—*continued*.

Name of Estate.	Area acquired. A.	R.	P.
Otago—*continued*.			
Tahawai	70	1	35
Teanaraki	351	0	39
Toka-rahi	14,259	2	36
	60,396	3	15
Southland—			
Beaumont	4,484	0	4
Glenham	11,464	2	10
Morrivale	9,998	0	0
Otahu	6,153	0	36
Ringway	2,253	2	8
	34,373	1	18

Name of Estate.	Area acquired. A.	R.	P.
SUMMARY.			
Auckland	35,869	2	14
Hawke's Bay	59,061	3	0
Taranaki	1,505	2	8
Wellington	15,772	3	15
Marlborough	68,135	2	0
Westland	3,230	1	6
Canterbury	140,376	2	13
Otago	60,396	3	15
Southland	34,373	1	18
Totals	418,723	1	9

Of the total area of 448,350 acres acquired to the 31st March, 1902, an area of 418,722 acres had been opened for public selection, and 386,529 acres were held under lease by 2,033 selectors, the annual rent payable thereon being £101,058. The area occupied by roads and reserves was 8,069 acres, and the area unlet 24,124 acres. The area acquired, but which, owing to the survey not being finished, had not been opened for selection was 29,649 acres.

SECTION XXVI.—FINANCE.

SUBSECTION A.—REVENUE AND EXPENDITURE OF THE GENERAL GOVERNMENT.

THE revenue for the year ended 31st March, 1902, was £6,152,839, and the ordinary expenditure £5,895,915, leaving an excess of revenue over expenditure of £256,924. Adding to this the balance brought forward from the previous year (1900–1901) of £532,564, gives a sum of £789,488. A transfer of £500,000 was made to the Public Works Fund, and £19,000 paid for the redemption of debentures, leaving at the close of the year a balance amounting to £270,488.

The chief heads of revenue and expenditure are shown in the following table:—

REVENUE AND EXPENDITURE.

Revenue.	£	£
Balance on 31st March, 1901		532,564
Customs duties	2,201,146	
Beer duty	90,233	
Stamps (including Postal and Telegraph cash receipts)	908,671	
Land-tax	312,836	
Income-tax	170,397	
Railways	1,869,489	
Registration and other fees	76,492	
Marine dues	81,456	
Miscellaneous	133,761	
Territorial revenue ...	249,619	
		6,053,070
Other receipts—		
Proceeds of debentures for increases of sinking fund	57,000	
Recoveries in respect of "Unauthorised" of previous years ...	42,769	
		99,769
		£6,685,403

Expenditure.	£	£
His Excellency the Governor	7,000	
Legislative	49,054	
Ministers' salaries and allowances	14,809	
Interest and sinking-fund charges	1,808,939	
Exchange and commission	23,477	
Pensions, civil and military	37,465	
Old-age pensions ...	210,045	
Railways	1,280,997	
Public instruction ...	539,317	
Postal and telegraph services	463,617	
Judicial and legal ...	251,680	
Hospitals and charitable institutions	90,646	
Defence	191,250	
Subsidies to local bodies	63,470	
Department of Agriculture	101,358	
Lunatic asylums ...	59,725	
Valuation Department ...	25,407	
Customs	40,738	
Marine (harbours and lights)	47,525	
Printing and stationery	33,214	
Land and Income Tax Department	21,960	
Registration of Land and Deeds, Births, Deaths, and Marriages ...	21,215	
Public buildings and domains	23,703	
Miscellaneous expenditure	255,843	
Territorial expenditure...	236,561	
		5,895,916
Other expenditure—		
Transferred to Public Works Fund		500,000
Debentures redeemed		19,000
Balance on 31st March, 1902 ...		270,488
		£6,685,403

Ordinary Revenue.

The ordinary revenue shows an increase for the year 1901–1902 of 3·96 per cent. over the figures for 1900–1901. When considering the figures given it must be remembered that population increased at the rate of 2·24 per cent., so that any rate above this means a higher ratio of revenue. Taking the items in order of their magnitude, the advance is shown below :—

Heads of Revenue.	Ordinary Revenue.				Increase.	
	1900–1901.	Per Cent. of Total.	1901–1902.	Per Cent. of Total.	Numerical.	Centesimal.
	£		£		£	Per Cent.
Customs duties	2,180,862	39·07	2,201,116	37·93	20,254	0·93
Railways...	1,720,641	30·82	1,869,489	32·21	148,848	8·65
Stamps (including Postal and Telegraph cash receipts)	903,935	16·19	908,671	15·66	4,736	0·52
Land-tax...	294,584	5·28	312,836	5·39	18,252	6·20
Income-tax	173,809	3·11	179,397	3·09	5,588	3·22
Beer duty	85,171	1·53	90,233	1·55	5,062	5·94
Registration and other fees	67,537	1·21	76,492	1·32	8,955	13·26
Marine	29,553	0·53	31,456	0·54	1,903	6·44
Miscellaneous	126,411	2·26	133,761	2·31	7,350	5·81
Ordinary revenue...	5,582,503	100·00	5,803,451	100·00	220,948	3·96

The amount derived from Customs duties was 0·93 per cent. greater than that shown for 1900–1901, Beer duty 5·94 per cent., Income-tax 3·22 per cent., Land-tax 6·20 per cent., Stamps, &c., 0·52 per cent., and Railway revenue shows an advance of 8·65 per cent. While the population of the colony increased by 2·24 per cent. during 1901–1902 the ordinary revenue advanced at the much higher rate of 3·96, as shown above.

The Customs and Excise duties in 1901–1902 accounted for £39 9s. 7d. out of every £100 of ordinary revenue collected; Railways, £32 4s. 2d.; and Stamps, &c., £15 13s. 2d. Of other items, the Land-tax yielded 5·39 per cent. and Income-tax 3·09 per cent. of the revenue.

Territorial Revenue.

Territorial revenue belonging to the Consolidated Fund decreased from £270,203 in 1900–1901 to £249,619 in 1901–1902, or at the rate of 7·62 per cent. In the previous year, 1900–1901, there was an increase of 3·04 per cent. Details for the last two years are as follows :—

	Territorial Revenue.				Increase or Decrease, 1901–1902.	
	1900–1901.	Per Cent. of Total.	1901–1902.	Per Cent. of Total.	Numerical.	Centesimal.
	£		£		£	Per Cent.
Cash land sales	78,794	29·16	59,576	23·87	-19,218	-24·39
Deferred-payment land sales	10,575	3·91	8,435	3·38	-2,140	-20·24
Pastoral runs, rents, miscellaneous	180,834	66·93	181,608	72·75	774	0·43
Territorial revenue	270,203	100·00	249,619*	100·00	-20,584	-7·62

* Exclusive of revenue derived from land set apart for State forests, £17,189; lands for close settlement, £90,053; and of the Cheviot Estate, £14,008. These moneys are credited in the separate *loan* accounts to which they belong. The amount of all moneys taken by the Receivers of Land Revenue during the year ended 31st March, 1902, will be found stated, under each head, in Section XXIV., "Crown Lands."

By the foregoing table the cash land sales for 1901–1902 are shown to have decreased by 24 per cent., and to supply 24 per cent. of the whole territorial revenue of the Consolidated Fund; while rents and miscellaneous, which constitute 73 per cent. of the total, have increased very slightly.

Ordinary and Territorial Revenue.

The total ordinary and territorial revenue is found to have increased from £5,852,706 in 1900–1901 to £6,053,070 in 1901–1902, at the rate of 3·42 per cent., or 1·18 per cent. more than the rate at which population increased :—

	Ordinary.	Territorial.	Total.
	£	£	£
Year 1901–1902	5,803,451	249,619	6,053,070
„ 1900–1901	5,582,503	270,203	5,852,706
Increase ..	220,948	..	200,364
Decrease	..	20,584	..

After allowing for alteration in system of charging interest and sinking fund, the charges of the public debt, paid out of the Consolidated Fund, in proportion to the ordinary and territorial revenue are found to have fallen from 41·6 per cent. in 1890–91 to 29·80 per cent. in 1901–1902.

If the sum of £68,011, the amount of territorial revenue received by way of land sales in 1901–1902, is deducted from the total revenue the charges of the public debt will be found to have absorbed 30·14 per cent. of the revenue, reduced by the sum derived from relinquishment of real estate of the Crown.

Total Revenue of General Government.

The whole of the revenue of the General Government arising from taxation as well as from other sources for the last seven financial

years exhibits great progress. The rates of taxation and of revenue per head of mean population are given to illustrate this:—

Year ended 31 March.	Revenue.			Rate of Taxation per Head of Mean Population.	Rate of Revenue per Head of Mean Population.
	From Taxation.	From other Sources.	Total.		
	£	£	£	£ s. d.	£ s. d.
1896	2,335,760	2,220,255	4,556,015	3 7 1	6 10 10
1897	2,521,911	2,276,797	4,798,708	3 11 0	6 15 1
1898	2,678,576	2,400,654	5,079,230	3 13 11	7 0 2
1899	2,707,099	2,551,129	5,258,228	3 13 3	7 2 3
1900	2,691,126	2,808,492	5,699,618	3 16 10	7 11 6
1901	3,042,890	2,864,026	5,906,916	3 19 6	7 14 4
1902	3,113,079	3,039,760	6,152,839	3 19 8	7 17 6

The total revenue is shown to have increased from £4,556,015 in 1895–96 to £6,152,839 in 1901–1902, a difference of £1,596,824, while the proportion to population has increased by over £1 per head.

The greater yield from the sources of taxation exhibited by the above figures can be regarded as indicative of increased prosperity enjoyed by the people of the colony.

Ordinary Revenue Expenditure.

The expenditure for 1901–1902 (exclusive of expenditure properly belonging to territorial purposes) amounted to £5,659,353, of which the largest item, after the charges of the public debt, £1,803,939, was on account of railways, £1,280,997. Public instruction cost £539,317, of which £445,366 was for carrying on the Board schools; £24,002 for technical and higher education; £19,371 for Native schools; £17,400 for industrial schools; and £24,793 for school-buildings. The postal and telegraph services cost £463,817. Under the heading "Judicial and Legal" the total sum expended was £254,680, of which the largest item was the police, £120,629; the next, District and Magistrates' Courts, £46,374; and, thirdly, prisons, £32,319. Hospitals and charitable institutions cost £90,646, and the lunatic asylums £59,725. Defence required £191,250; the Department of Agriculture £101,358; and the Valuation Department £25,407. Payments of old-age pensions required £210,045 for the year.

Territorial Revenue Expenditure.

The chief items of expenditure under this head are the Lands and Survey Department, £122,278, and Mines, £15,504; while there was paid to local bodies £93,823 (£30,483 being "thirds" and

"fourths" under the Land Act; and £20,993 for the Greymouth, £4,802 for the New Plymouth, £35,800 for the Westport, and £1,746 for the Nelson Harbour Boards); besides £4,538 expended in management of water-races, and £418 in rates on Crown lands.

Ordinary and Territorial Revenue Expenditure: Six Years.

The expenditure out of ordinary and territorial revenue during the last six financial years is tabulated, specifying the chief heads of expenditure. It must be noted that the old-age pensions become a large item for the years 1899–1900, 1900–1901, and 1901–1902. The development of the Departments of Agriculture, Public Health, &c., also contributed to raising the expenditure latterly:—

Expenditure.	Financial Years (ended 31st March).					
	1896-97.	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.
	£	£	£	£	£	£
Charges of the Public Debt ..	1,709,469	1,741,413	1,767,468	1,749,394	1,745,616	1,803,939
Railways ..	776,748	849,923	968,917	1,039,412	1,145,088	1,280,997
Public Instruction (including School-buildings, Industrial and Native Schools, and Deaf-and-dumb Institution)	461,582	466,925	475,218	472,659	481,087	539,317
Postal and Telegraph ..	352,386	362,993	388,546	388,582	416,364	463,817
Militia and Volunteers ..	88,742	91,388	119,051	162,940	229,704	191,250
Old-age Pensions	..	..	3,124	157,095	199,708	210,045
Crown Lands and Surveys ..	115,247	119,920	114,469	123,441	137,838	122,278
Police and Armed Constabulary ..	100,401	104,214	115,293	115,752	117,744	120,629
Other expenditure	905,406	865,596	906,425	930,858	1,006,555	1,163,643
Totals ..	4,509,981	4,602,372	4,858,511	5,140,127	5,479,704	5,895,915

Loan Accounts Expenditure, 1901–1902.

In addition to the expenditure above referred to, there were also—excluding operations on debentures, &c.—disbursements during the financial year ended 31st March, 1902, out of the Public Works Fund to the amount of £2,143,252, chiefly for roads, railway construction, and for public buildings; also out of the Land for Settlements Account the large sum of £430,776 for purchase of estates to be cut up for close settlement, including contingent expenses. This account also aided the Consolidated Fund by reducing the interest to be paid to the extent of £66,835. The Loans to

Local Bodies Account, which deals with moneys used chiefly for roading the more inaccessible country and for water-supply, shows an expenditure of £240,510; and for interest on debentures, surveys, roads, &c., in connection with the Cheviot Estate £8,881 was paid. Details of all these are given. The total expenditure out of loan accounts was £2,890,767, or adding £600,000 for temporary advances repaid, £3,490,767. As previously explained, this account was aided by a transfer from revenue of £500,000 to the Public Works Fund.

EXPENDITURE OUT OF LOAN ACCOUNTS, 1901-1902.

	£	£
Public Works Fund—		
Immigration	140	
Public Works, Departmental	16,404	
Railways	1,333,941	
Roads	403,690	
Development of goldfields	15,325	
Purchase of Native lands	18,261	
Telegraph extension	31,729	
Public buildings	145,600	
Lighthouses, harbour-works, and defences	12,159	
Tourist and health resorts	11,260	
Rates on Native lands	570	
Contingent defence	146,876	
Lands improvement	1,677	
Charges and expenses of raising loans	5,620	
		2,143,252
Cheviot Estate Account—		
Interest (including arrears)	8,866	
Surveys, roading, &c...	15	
		8,881
Lands for Settlement Account—		
Purchase of estates	406,577	
Expenses	24,199	
Interest recouped to Consolidated Fund	66,835	
Charges and expenses on issue of debentures under the Act	513	
		498,124
Loans to Local Bodies Account—		
Grants to local bodies	208,531	
Roads to open up Crown lands	31,979	
		240,510
Total		2,890,767
Lands for Settlement Account—		
Temporary advances repaid	200,000	
Aid to Public Works and Land Settlement Acts—		
Temporary advances repaid	400,000	
		600,000
Total		£3,490,767

The expenditure out of loan accounts for five years may be summarised as given in the next table :—

Heads of Expenditure out of Loan Accounts.	Financial Years.				
	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.
	£	£	£	£	£
Charges and expenses of raising loans	5	225	28,322	1,460	5,620
Cheviot Estate purchase and expenses	16,657	16,497	8,917	8,937	8,881
Contingent defence ..	10,360	13,867	42,810	37,650	146,876
Immigration	70	105	385	214	140
Land purchases	*220,089	*571,642	*501,355	*280,575	*516,385
Lighthouses, harbour-works, and defences	5,295	15,662	9,026	6,517	12,159
Public buildings	73,585	107,267	115,427	121,364	145,600
Public Works departmental expenditure	9,689	10,090	12,572	12,933	16,404
Railway-construction and other works connected with railway extension ..	351,600	374,141	417,937	717,723	1,333,941
Rates on Native lands ..	156	347	744	673	570
Roads	†309,548	†312,506	†316,753	†353,131	†435,669
Telegraph extension ..	29,384	28,551	26,771	50,101	31,729
Development of goldfields..	33,117	17,355	21,815	15,907	15,325
Tourist and health resorts..	..	..	..	..	11,260
Lands improvement ..	..	..	..	..	1,677
Payments to local bodies under Government Loans to Local Bodies Acts ..	75,257	75,428	68,770	138,956	208,531
Totals	1,134,812	1,543,683	1,571,604	1,746,141	2,890,767

* Including sums expended in the purchase of land for settlements—viz., £158,586 in 1897-98; £518,459 in 1898-99; £469,331 in 1899-1900; in 1900-1901 £251,837, and in 1901-1902, £498,124.

† Including sums expended under Loans to Local Bodies Acts—viz., £18,770 in 1897-98; £16,972 in 1898-99; £31,363 in 1899-1900; in 1900-1901, £37,390; and in 1901-1902, £31,979.

NOTE.—*Excluding* amounts applied to investments by way of advances to settlers with charges and expenses, besides amounts for debentures redeemed and advances repaid.

The total amount of actual loan-moneys under various heads raised from the beginning is roughly shown further on in a table dealing with the public debt of the colony.

Although the Public Works Fund forms the main source of the expenditure out of loan accounts, all the money included in it has not been raised from loans. Amounts from the revenue of the Consolidated Fund were paid to the Public Works Fund during the last eleven financial years as follows :—

	£
1891-92	30,000
1892-93	200,000
1893-94	250,000
1894-95	250,000
1895-96	150,000
1896-97	150,000
1897-98	300,000
1898-99	425,000
1899-1900	450,000
1900-1901	500,000
1901-1902	500,000
Total	£3,205,000

The expenditure each year since 1884 on services provided for by the Public Works Fund has been :—

Year.	Immigration.	Railways.	Roads.	Development of Goldfields.	Telegraph Extension.	Public Buildings.	Lighthouses, &c.	Other Services.	Totals.
	£	£	£	£	£	£	£	£	£
1884-85...	57,148	663,063	317,013	8,029	25,799	117,361	31,033	114,251	1,336,727
1885-86...	11,075	725,496	335,904	9,032	36,010	86,859	133,975	136,435	1,475,386
1886-87...	12,454	615,265	278,617	7,655	18,952	89,598	148,705	162,228	1,333,494
1887-88...	15,598	403,726	219,519	1,016	23,984	93,529	76,825	135,902	968,159
1888-89...	8,791	272,077	106,440	55	12,047	34,592	47,593	132,314	613,939
1889-90...	807	289,572	84,126	284	16,346	35,473	9,434	46,362	482,464
1890-91...	1,823	180,020	71,289	821	16,293	22,819	2,666	39,026	334,756
1891-92 ..	817	154,416	101,605	2,257	27,773	34,791	7,347	62,495	391,501
1892-93...	242	220,894	105,506	3,811	29,245	31,101	11,205	60,502	462,506
1893-94...	343	176,304	147,418	5,272	16,127	44,032	6,588	10,713	406,797
1894-95...	101	247,545	61,757*	5,865	19,229	54,190	3,145	9,578	401,410*
1895-96...	*Cr.* 10	197,105	66,774*	9,345	35,538	76,529	7,410	19,639	412,330*
1896-97...	301	247,231	64,292*	10,508	36,791	70,579	11,600	26,583	427,985*
1897-98...	70	351,600	290,777†	33,117	29,384	73,585	5,295	81,715	865,543†
1898-99 ..	105	374,141	295,534†	17,354	28,551	107,257	15,662	77,713	916,327†
1899-1900	385	417,937	285,532†	21,815	26,771	115,427	9,026	116,340	993,223†
1900-1901	214	717,723	315,791†	15,907	50,101	121,854	6,517	81,404	1,309,021†
1901-1902	140	1,313,941	403,690†	15,335	31,729	145,600	12,159	200,668	2,143,252†

* Exclusive of moneys spent on roads under Lands Improvement, Native Lands Purchase, and Government Loans to Local Bodies Accounts: £103,076 in 1894-95, £162,757 in 1895-96, £173,358 in 1896-97.

† The expenditure on roads under the first two Acts mentioned above (*) is included as part of Public Works Fund; the sum of £18,770 was also spent out of Loans to Local Bodies Account on roads to open up Crown lands in 1897-94, £16,972 in 1898-99, £31,353 in 1899-1900, £37,390 in 1900-1901, and £31,979 in 1901-1902. These moneys have been excluded as have also small sums expended in roading, &c., the Cheviot Estate.

Conversion Account.

Three-per-cent. stock to the value of £384,147 was inscribed during the year 1901-1902, which began with a credit balance of £3,887 in this account. Of this sum, £51,330 was applied to pay off debentures, £39,900 was exchanged for debentures under "The Land for Settlements Act, 1894," and £285,000 for debentures under the Aid to Public Works and Land Settlement Act. Premiums amounting to £2,247 were paid on these conversions. Expenses, the chief items of which were discount (£1,690), stamp duty (£839), interest (£1,458), brokerage and commission (£135), office expenses,

rents, law charges, &c. (£732), absorbed £4,854, leaving a credit balance in this account of £4,704 on the 31st March, 1902.

Loans for Government Advances to Settlers.

A notable feature in the legislation of the year 1894 was the passing of the Government Advances to Settlers Act, a description of which, with its amending Acts and the loan operations under the same, will be found in Part III.

The loans authorised to the 31st March, 1902, classified according to provincial districts, are shown in tabular form :—

Provincial Districts.	Loans authorised.		
	Number of Applications.	Amount applied for.	Amount of Advances authorised.
		£	£
Auckland	2,133	676,006	589,133
Taranaki	1,567	667,442	585,609
Hawke's Bay	782	243,070	216,585
Wellington	2,885	1,138,472	995,303
Marlborough	363	144,377	130,585
Nelson	167	53,115	46,955
Westland	128	32,155	28,845
Canterbury	919	295,752	257,715
Otago	2,368	1,002,611	885,890
Totals	11,312	4,253,000	3,736,620

Of the 11,312 advances authorised, 1,450 applicants declined the grants (£662,935) offered them, so that the net advances to the 31st March, 1902, numbered 9,862, and amounted to £3,073,685.

Of the total advances authorised, 9,272 were for advances under £500 in value, and 2,040 over.

The number of applications received to the 31st March, 1902, was 14,746, for an aggregate amount of £5,204,300.

The advances authorised on fixed loans, according to provincial districts, to the 31st March, 1902, were :—

Provincial Districts.	No.	Amount of Mortgage.	Value of Security.
		£	£
Auckland	43	10,340	28,069
Taranaki	55	39,935	92,174
Hawke's Bay	18	6,750	15,668
Wellington	70	50,620	117,305
Marlborough	..	..	..
Nelson	3	250	963
Westland	6	670	2,113
Canterbury	16	13,425	29,164
Otago	84	51,045	110,928
Totals	295	173,035	396,384

The liabilities and assets at 31st March, 1902, of the Government Advances to Settlers Office were :—

Dr. *Liabilities.*	£	s.	d.	Cr. *Assets.*	£	s.	d.
3-per-cent. Loan, redeemable 1st April, 1945, "A"	1,500,000	0	0	Investment Account—			
3-per-cent. Loan, redeemable 1st April, 1945, "B"	500,000	0	0	Advances on mortgages £3,035,230 0 0			
3-per-cent. sundry loans	646,333	6	8	Less repayments 668,530 6 1	2,366,699	13	11
Suspense Account	4,044	2	0	Temporary investments, Bank of New Zealand guaranteed stock	4,836	17	0
Accrued interest payable	84	5	5	Sinking Fund Investment Account with Public Trustee	95,954	7	5
Profit and Loss Account £76,172 11 7				Assurance Fund Investment Account with Public Trustee	43,872	9	6
Less amount written off loan, flotation charges 30,000 0 0	46,172	11	7	Mortgage instalments receivable, overdue	1,617	8	7
				Bills receivable	990	11	7
				Interest receivable, overdue	7,207	13	5
				" accrued	25,176	14	1
				Cash in hand and in bank	36,350	8	6
				Loan-flotation charges	113,928	1	8
	£2,696,634	5	8		£2,696,634	5	8

"The Government Advances to Settlers Act Amendment Act, 1899," as an encouragement to the early payment of the prescribed instalments of interest on fixed loans, and of interest and principal on loans under the instalment principle, provides for a rebate to the mortgagor, which reduces his interest to 4½ per cent. in lieu of 5 per cent. per annum.

There are new alternative modes of disposing of moneys paid in advance laid down in this measure, but it is optional with mortgagors to adopt the new system instead of that previously in operation in respect of moneys paid before the commencement of the new Act, and which are held under the original arrangements.

Provision is made for the readjustment of loans by memorandum of adjustment, which gives elasticity to the system by treating the balance of principal due as a fresh loan granted for a new term.

The margin of security on loans is provided for as follows: In the case of fixed loans the amount of the loan is not to exceed three-fifths of the value of the security, while in case of loans under the instalment system on freehold security of first-class agricultural land the amount of the loan is not to exceed two-thirds the value of the security; on other rural freeholds the limit is three-fifths.

Advances may now be made on the security of urban or suburban land, but on the instalment system only, and with limitation of amount to a maximum of two thousand pounds and a minimum of twenty-five.

Urban land is defined as that situate in a borough having a population of at least two thousand persons, and which is not used for farming, dairying, or market gardening. And suburban land means that which is situate in a borough having under two thousand people, or any town or vicinity, and which is not used for agricultural or dairying purposes as above referred to.

As to security for loans,—in the case of urban lands on which there are buildings, the amount of the loan is not to exceed three-fifths of the value of the land apart from the buildings, *plus* one-half of the value of the buildings apart from the land. When the land is suburban, having buildings thereon, the loan is not to exceed one-half of the value of the land apart from the buildings, *plus* one-half of the value of the buildings separately.

When the land be urban or suburban, but having no buildings, the loan is not to exceed one-half of the value of the land, and there is not to be any loan except for the erection of buildings, and to be by way of instalments as erection proceeds.

There is a further subdivision of the Act, under which special provisions are made for protecting the interests of the Advances to Settlers Department, with respect to other than freehold securities.

New Zealand Consols.

Another important financial Act, termed the New Zealand Consols Act, was passed in 1894, with the intention of providing further means of investment for the savings of persons resident in the colony. Some progress is being made in this class of deposits, which tends to show that the public may in time recognise the system as a means of safe and profitable investment of their savings. It is singular that deposits of moneys belonging to trust funds or minors are not more freely made. It is thought that the advantage of such an investment at a fair rate of interest and of a permanent character is not widely enough known.

Up to the 31st March, 1899, deposits amounting to £385,925 had been received in sums ranging from £5 to £150,000. During 1899–1900 the deposits inscribed totalled £55,562, in 1900–1901 £17,902, and in 1901–1902 £8,935, making the sum invested to the 31st March, 1902, £468,324.

The system of making deposits in New Zealand Consols is fully described in Part III.

Aid to Public Works and Land Settlement.

"The Aid to Public Works and Land Settlement Act, 1896," empowered the Colonial Treasurer to raise £1,000,000: in aid of the Public Works Fund to the extent of £500,000, and the Lands Improvement Account and the Native Lands Purchase Account, £250,000 each. The sum of £750,000, bearing interest at 3½ per cent. per annum, was raised locally at par (£500,000 being issued with an alternative currency of ten or twenty-five years); the balance of £250,000 being placed upon the London market in the form of 3-per-cent. inscribed stock, along with the further loan referred to in the succeeding paragraph.

The Aid to Public Works and Land Settlement Act Amendment Act, passed in 1897, authorised the raising of an additional sum of £250,000 to be applied for the purpose of procuring £200,000 for further rolling-stock for railways, and for the repair of damages

to lines by floods or otherwise; £25,000 for erection and repair of public-school buildings, and another sum of £25,000 for purposes of building and equipment of technical schools.

"The Aid to Public Works and Land Settlement Acts Amendment Act, 1898," provided for raising £500,000 in addition to £250,000 raised under the Amendment Act of 1897, and the £1,000,000 under the principal Act of 1896, the provisions of which extend to the later Act.

Of £500,000 which was paid to the Public Works Fund the amount of £175,000 was allocated to railways construction, £200,000 was for new rolling-stock for open railways, and £125,000 for the construction of roads, bridges, and other works authorised.

Under "The Aid to Public Works and Land Settlement Act, 1899," the sum of £1,000,000 was authorised: £300,000 for railway construction, £225,000 for rolling-stock, £350,000 for land settlement and goldfields development, £50,000 for school-buildings, £50,000 for purchase of native lands, and £25,000 for harbour defence.

"The Aid to Public Works and Land Settlement Act, 1900," provided for the raising of £1,000,000, of which £500,000 was allocated to railway construction, £300,000 for rolling-stock, £150,000 for land settlement, and £50,000 for goldfields development.

"The Aid to Public Works and Land Settlement Act, 1901," authorised the raising, in the colony or elsewhere, sums of money not exceeding one million two hundred and fifty thousand pounds sterling altogether, by debentures or scrip, or by the creation or issue of inscribed stock under "The New Zealand Consolidated Stock Act, 1877."

Provision was made for obtaining the money wanted, pending the raising of the money authorised, by the sale, &c., of short-dated debentures, bearing interest not exceeding 4 per cent. per annum, and having a currency of not more than seven years.

All the money raised under the Act and placed to the credit of the Public Works Fund, is applied to the following works and purposes:—

	£
1. Railways—	
Railway construction	600,000
Additional rolling-stock, &c., for open lines ..	400,000
2. Land settlement and goldfields development—	
Construction of roads, tracks, and bridges to open up back blocks, and other work in connection therewith	200,000
For developing goldfields	50,000
	£1,250,000

Loans under Land for Settlements Acts.

The moneys raised under these Acts and the operations by way of purchasing estates to be cut up for close settlement form the subject of a special section of this part of the Year-book (No. XXV.).

"The Local Bodies' Loans Act, 1901."

The above measure consolidates all former measures dealing with the borrowing-powers of local bodies. It does not affect the securities issued for any loan raised under any Act repealed.

As to Government loans to local bodies, the yearly rate of interest and the period during which interest is payable by the local authority shall, at the option of such authority, be,—

(*a.*) Four and a half per centum per annum for a period of twenty-six years; or

(*b.*) Four per centum per annum for a period of thirty-two years; or

(*c.*) Three and a half per centum per annum for a period of forty-one years.

The interest payable in respect of every existing loan the period of which is twenty-six years shall be 4½ per centum per annum, unless such loan be adjusted under either of the alternatives (*b*) or (*c*) mentioned above. These readjustments may be applied to any loan existing at the time of the passing of the Act should the local authority interested so elect.

At the expiration of the period during which interest is payable the liability of the local authority shall cease without further payment.

Y.B

Village Scene, Mangaia.

SECTION XXVI.—FINANCE—*continued.*

SUBSECTION B.—TAXATION.

THE direct taxation prior to 1892 consisted of a property-tax of 1d. in the pound on all assessed real and personal property (with an exemption of £500), and the stamp duties; but in 1891 a Land and Income Assessment Act was passed repealing the property-tax. A full description of the system of the land- and income-tax will be found in a special article in Part III. of this work. The leading features only are briefly stated here.

The Assessment Act of 1891 provided for an ordinary land-tax on the actual value of land, allowing an owner to deduct any amount owing by him secured on a registered mortgage. Under the original Act the deduction for improvements might not exceed £3,000; but, by the Amendment Act of 1893, the value of all improvements whatsoever was exempted from liability to land-tax. Besides this, an exemption of £500 was allowed when the balance, after making deductions as above stated, was not above £1,500; and beyond that a smaller exemption was granted, but ceasing when the balance amounted to £2,500. There is a Consolidation Act passed in 1900 now in force. Mortgages are subject to the land-tax. The revenue from the ordinary land-tax is, in round numbers, about £234,000 per annum. The rate of ordinary land-tax for 1901–1902 was 1d. in the pound. Occupied Native land is taxed ½d. in the pound on the unimproved value.

In addition to the ordinary land-tax, there is a graduated land-tax, which commences when the unimproved value is £5,000. For the graduated land-tax, the present value of all improvements is deducted; but mortgages are not deducted. The Act of 1893, while reducing the ordinary taxation on land by exempting all improvements, increased the graduated tax, and the revised rates are now one-eighth of a penny in the pound sterling when the value is £5,000 and is less than £10,000, from which the rate increases with the value of the property by further steps of an eighth of a penny until the maximum of 2d. in the pound is reached, payable when the value is £210,000, or exceeds that sum.

This graduated tax yields, in round numbers, £79,000 per annum, which is not included in the sum of £234,000 given above. Twenty per cent. additional tax is levied in case of persons who have been absent from the colony for three years or more prior to the passing of the yearly taxing Act. This amounts to about £1,000, and is included in the £79,000 shown above.

The taxable balances of real estates for purposes of the graduated tax according to the latest information were :—

Rate.	Taxable Balance.	Tax.	Rate.	Taxable Balance.	Tax.
	£	£		£	£
⅛d. ..	7,955,208	4,144	1¼d. ..	1,009,036	5,256
¼d. ..	4,619,599	4,812	1⅜d. ..	936,350	5,365
⅜d. ..	2,549,134	3,823	1½d. ..	421,297	2,633
½d. ..	2,113,784	4,404	1⅝d. ..	461,138	3,122
⅝d. ..	1,386,931	3,612	1¾d. ..	183,420	1,337
¾d. ..	1,879,499	5,873	1⅞d. ..	207,115	1,618
⅞d. ..	1,406,316	5,127	2d. ..	1,306,762	10,890
1d. ...	2,480,954	10,337			
1⅛d. ..	1,259,265	5,861	..	30,175,808	78,214

Income-tax is levied on all incomes above £300, but from the yearly income of every taxpayer there is deducted by way of special exemption the sum of £300, and from taxable incomes a further deduction up to £50 per annum for life insurance premiums is allowed. The rate of income-tax for 1901–1902 was 6d. in the pound on the first taxable £1,000, and 1s. in the pound on taxable incomes over £1,000.

Companies pay 1s. in the pound, and are not allowed the £300 exemption. The Act of 1893 further disallowed the £300 exemption in the case of persons not domiciled in New Zealand.

The revenue derived from income-tax may be roughly set down at £179,000 per annum.

The indirect taxation is made up of Customs duties, and excise duty on beer made in the colony.

The following statement shows the total amount raised by the General Government taxation in 1885, 1890, and the last seven financial years ending 31st March :—

	Amount of Revenue raised by Taxation.	Amount per Head of Population (excluding Maoris).
	£	£ s. d.
1885	.. 2,016,780	.. 3 10 10
1890	.. 2,173,985	.. 3 10 0
1895–96 ..	.. 2,335,761	.. 3 7 1
1896–97 ..	.. 2,521,911	.. 3 11 0
1897–98 ..	.. 2,678,576	.. 3 13 11
1898–99 ..	.. 2,707,099	.. 3 13 3
1899–1900 ..	.. 2,891,126	.. 3 16 10
1900–1901 ..	.. 3,042,890	.. 3 19 6
1901–1902 ..	.. 3,113,079	.. 3 19 8

The average annual amount of revenue raised by taxation during the nine years, 1882 to 1890 inclusive, was £3 8s. 11d. per head of population, excluding Maoris.

It may be well to call attention to the fact that a rise in the amount of taxation yielded per head of population may indicate (outside the question of increasing the rate of any particular tax levied) a satisfactory condition of business, as showing activity. In regard to the Customs, notwithstanding modifications of the tariff in 1895, the value of the imports for 1901–1902 was greater than for 1898–99, 1899–1900, or 1900–1901, which would seem to show greater purchasing-power than before, and that profits of trade would still allow of a large amount of duty being paid. The quantity of stocks in hand at the beginning and end of the two years, and any disturbance in prices during the period, may modify the above argument.

As the Maoris contribute somewhat to the Customs revenue, an allowance should be made on that account to ascertain more correctly the amount of taxation per head of the rest of the people. By including Maoris the Customs and excise duties per head of the rest of the population would be reduced by 3s. 0¾d. for the year 1901–1902. If this amount be deducted from the taxation per head given for that year, the rate would be reduced from £3 19s. 8d. to £3 16s. 7¼d. This latter rate may fairly be used for comparison with the rates in the neighbouring states.

Of the total amount of taxation stated for the year 1901–1902, the indirect taxation—*i.e.*, Customs and excise duties—amounted to £2,291,349, while land and income tax, with stamps for taxation, yielded £821,730, which constitutes direct taxation. So that the colony still raises 74 per cent. of its revenue from taxation by means of the indirect method.

A table of the Customs tariff is given in detail in Part I. of this book (pp. 83–99), and the duties leviable upon estates of deceased persons on page 410.

Growth of Amount paid in Income-tax.

The amounts paid by way of income-tax, under a uniform rate of taxation, show great increase year by year, and afford satisfactory evidences of prosperity. These are quoted with a caution in regard to the figures for 1892 to 1895. The full number of persons properly liable to the tax may not have been ascertained at such time.

	Income-tax paid. £
1892–93	67,367
1893–94	75,238
1894–95	89,891
1895–96	92,778
1896–97	105,504
1897–98	115,210
1898–99	115,480
1899–1900	128,721
1900–1901	173,809
1901–1902	179,397

The increase from 1895–96 to 1901–1902 is £86,619, being a rate of 93·36 per cent., while the population increased during the same period by 12·32 per cent.

Taxation by Local Governing Bodies.

The various local bodies levied taxation during the year ended 31st March, 1901, to the amount of £833,138, or £1 1s. 9d. per head of European population. Of the total sum, £490,789 was raised by general rates, £243,235 by special and separate rates, £81,561 by licenses, and £17,554 by other taxes.

Taxation in Australasia.

The following were the rates of General Government taxation per head of population in Australasia for 1900–1901, specifying the proportions derived from Customs and other taxes :—

State or Colony.	Rate of Taxation per Head of Mean Population.			Proportion of Taxation from Customs and Excise Duties.	Ratio of Taxation by Customs to Value of Imports.
	Customs and Excise.	Other Taxes.	Total.		
	£ s. d.	£ s. d.	£ s. d.	Per Cent.	Per Cent.
Queensland ..	3 0 5	0 13 3	3 13 8	82·03	19·82
New South Wales	1 8 11	0 15 8	2 4 7	64·95	5·16
Victoria ..	2 2 10	0 12 1	2 14 11	77·97	10·82
South Australia ..	1 16 11	0 15 9	2 12 8	70·07	8·24
Western Australia	5 10 2	0 16 0	6 6 2	87·32	15·35
Tasmania ..	2 15 3	0 17 3	3 12 6	76·11	22·40
New Zealand (excluding Maoris)	2 18 9	1 0 9	3 19 6*	74·47	20·39

*Or, including the Maoris, £3 16s. 4d. See remarks on previous page.

The above calculations, with the exception of New Zealand, are taken from figures published in Mr. Coghlan's "Six States of Australia and New Zealand."

SECTION XXVI.—FINANCE—*continued.*

SUBSECTION C.—PUBLIC DEBT.

THE gross public debt of the colony on the 31st March, 1902, was £52,966,447, an increase of £3,375,202 on the amount owing at the end of the preceding financial year.

The following table states the debentures and stock in circulation on 31st March, 1902, under the several Loan Acts or Ordinances of the Colonial and Provincial Governments, the dates when redeemable, the sinking funds accrued in respect of the same, and the annual charge thereon for interest and sinking fund :—

Public Debt on 31st March, 1902.

—	Amount Outstanding.		Due Date.	Sinking Funds Accrued	Net Indebtedness.	Annual Charge.				Remarks.
						Rate.		Amount.	When payable.	
						Int.	S.F.			
	£	£		£	£	£ c.	£ c.	£		
New Zealand Loan Act, 1863...	...	266,300	15 July, 1914	137,880	128,420	5	1	15,978	15 Jan. and 15 July.	
Consolidated Loan Act, 1867...	...	288,400	Ann. drawing	...	288,400	5	...	14,420	Quarterly, 15 Jan., &c.	
Immigration and Public Works Loan Act, 1870	...	*1,000,000	1 June, 1907	705,703	294,297	4	2·4	64,000	1 June and 1 Dec.	Sinking Fund payable 13 Mar. and 13 Sept.
Canterbury Loan Ordinance, 1862	3,800 12,200	16,000	2 Jan., 1915 2 July, 1916	13,470	2,530	6	1	1,120	30 June and 31 Dec.	*Only £200,000 has actually been issued to the public; the unsold debentures are available for the purpose of obtaining temporary advances from time to time.
Consolidated Loan Act, 1867...	...	13,000	15 April, 1913	..	13,000	4	...	520	15 April and 15 Oct.	
Immigration and Public Works Loan Act, 1870	363,000 27,900	390,900	15 April, 1913 15 April, 1913	... ...	363,000 27,900	4 4½	... ...	14,520 1,256	15 April and 15 Oct. 15 April and 15 Oct.	
Defence and other Purposes Loan Act, 1870	25,000 75,000	100,000	1 July, 1910 15 April, 1913	... ...	25,000 75,000	4½ 4	... ...	1,125 3,000	30 June and 31 Dec. 15 April and 15 Oct.	
General Purposes Loan Act, 1873	17,400 10,800 54,700	82,900	15 Oct., 1913 15 May, 1914 28 Nov., 1914	... ...	17,400 10,800 54,700	4 4 5	... ...	696 432 2,735	15 April and 15 Oct. 15 May and 15 Nov. 15 May and 15 Nov.	† The Sinking Fund is payable on £1,744,100 (1½ per cent. on £1,354,514, 1 per cent. on £15,675, and ½ per cent. on £373,911); the Land Assurance Fund is also charged with ½ per cent. as a contribution towards Sinking Fund.
District Railways Purchasing Acts, 1885-86	40,000 97,100	137,100	1 July, 1909 1 April, 1905	... ...	40,000 97,100	6 4	... ...	2,400 3,884	1 April and 1 Oct.	
Government Loans to Local Bodies Act, 1886	...	250,300	1 Sept., 1907	...	250,300	3½	†	31,104	1 Mar. and 1 Sept.	

Consolidated Stock Act, 1877	29,150,302 6,161,167 8,032,957	43,344,426	1 Nov., 1929 1 Jan., 1940 1 April, 1945	... ...	29,150,302 6,161,167 8,032,957	4 3½ 3	... ...	1,166,012 215,641 240,988‡	1 May and 1 Nov. 1 Jan. and 1 July. 1 April and 1 Oct.	‡ £82,200 of this amount will be recouped by the Government Advances to Settlers Office.
Consolidated Stock Act, 1884—										
Colonial Issue ...	214,500 509,500	724,000	1 Sept., 1905 31 Dec., 1907	... ...	724,000	3½	...	25,340	1 Mar. and 1 Sept.	
Native Land Purchases Act, 1892 (Renewed under the Aid to Public Works and Land Settlement Act, 1899)	...	125,000	31 Oct., 1906	...	125,000	3½	...	4,375	30 April and 31 Oct.	
Land for Settlements Act, 1892 (Renewed under the Land for Settlements Acts Amendment Act, 1899)	...	45,276	31 Oct., 1906	...	45,276	3½	...	1,585	30 April and 31 Oct.	
Land for Settlements Acts, 1894, 1897, 1899, and 1900	769,490 349,000 62,000 260,100 56,000 10,000 527,950 21,000 338,200	2,393,740	31 Oct., 1906 1 April, 1909 1 April, 1909 1 April, 1902 1 April, 1905 1 April, 1906 1 May, 1904 1 Nov., 1904 1 Feb., 1905	... ...	769,490 349,000 62,000 260,100 56,000 10,000 527,950 21,000 338,200	3½ 3½ 3½ 4 4 3½ 4 4 4	... ...	26,932 13,088 2,170 10,404 2,240 350 21,118 840 13,528	30 April and 31 Oct. 1 April and 1 Oct. 1 April and 1 Oct. 1 April and 1 Oct. 1 April and 1 Oct. 1 April and 1 Oct. 1 May and 1 Nov. 1 May and 1 Nov. 1 Feb. and 1 Aug.	
Lands Improvement and Native Lands Acquisition Act, 1894	...	400,000	30 Sept., 1908	...	283,000 117,000	4 3½	... ...	11,320 4,095	31 Mar. and 30 Sept. 31 Mar. and 30 Sept.	
New Zealand Consols Act, 1894	...	468,324	1 Feb., 1910	...	468,324	3½	...	16,391	1 Feb. and 1 Aug.	
Carried forward ...	...	50,045,666	...	857,058	49,188,613	...	...	1,933,607		

PUBLIC DEBT ON 31ST MARCH, 1902—*continued.*

	Amount Outstanding.		Due Date.	Sinking Funds Accrued.	Net Indebtedness.	Annual Charge.				Remarks.
						Rate.		Amount.	When payable.	
						Int.	S.F.			
	£	£		£	£	£ s.	£ s.	£		
Brought forward ...	...	50,045,666	...	857,053	49,188,613	...	...	1,933,607		
	500,000		15 Aug., 1921*	...	500,000	3½	...	17,500	15 Feb. and 15 Aug.	* Loan may be paid off at any time after 15th February, 1907, on six months' notice being given.
	15,000		31 Oct., 1903	...	15,000	3½	...	525	1 Feb. and 1 Aug.	
	150,000		4 Jan., 1904	...	150,000	3½	...	5,250	1 Feb. and 1 Aug.	
	100,000		15 Jan., 1905	...						
	100,000		15 Feb., 1905	...						
	100,000		15 Mar., 1905	...	500,000	3½	...	17,500	23 April and 23 Oct.	
	100,000		17 April, 1905	...						
Aid to Public Works and Land Settlement Acts, 1896, 1897, 1898, 1899, 1900, and 1901	100,000	2,845,000	15 May, 1905	...						
	100,000		15 June, 1905	...						† ¼ per cent. over bank rate; varying interest, calculated at 3½ per cent.
	100,000		16 July, 1905	...						
	100,000		15 Aug., 1905	...	465,000	†	...	16,275	31 Mar. and 30 Sept.	
	100,000		15 Sept., 1905	...						
	65,000		15 Oct., 1905	...						
	465,000		1 April, 1903	...	465,000	4	...	18,600	1 April and 1 Oct.	
	500,000		1 April, 1904	...	500,000	4	...	20,000	1 April and 1 Oct.	
	250,000		1 Dec., 1904	...	250,000	4	...	10,000	1 June and 1 Dec.	
	438		1 Aug., 1908	...						‡ Represents the accrued Sinking Fund in respect of the total amount issued under "The Government Loans to Local Bodies Act, 1886," of which £1,421,800 has been converted into Consolidated Stock.
Dairy Industry Act, 1898	843	1,781	1 Jan., 1911	...	1,781	3½	...	62	1 Feb. and 1 Aug.	
	500		1 Jan., 1916	...						
Government Accident Insurance Act, 1898	...	2,000	1 Feb., 1911	...	2,000	3½	...	70	1 Feb. and 1 Aug.	
Local Bodies' Loans Act, 1901	...	72,000	1 Jan., 1909	...	72,000	3½	...	2,520	1 Mar. and 1 Sept.	
					52,109,394					
Less accrued Sinking Fund in respect of the Government Loans to Local Bodies Acts	...	...	...	‡271,763	271,763					
Totals	...	52,966,447§	...	1,128,816	51,837,631	...	...	2,041,909		§ Treasury bills amounting to £700,000 are not included.

Net Indebtedness: Comparison with past Years.

The net public debt, after deducting the accrued sinking fund (£1,128,816), was on 31st March, 1902, £51,837,631, an increase of £3,279,880 during the year. More than eight years' revenue, ordinary and territorial, at the present rate would thus be required to pay off the net debt of the colony. The net indebtedness per head of population for 1901–1902 is greater than in 1900–1901 by £2 15s. 6d. In March, 1890, it stood at £60 5s. 3d.; in 1891, £59 11s. 10d.; in 1892, £59 2s.; in 1893, £58 2s. 7d.; in 1894, £57 8s. 10d.; in 1895, £57 9s. 9d.; in 1896, £60 2s. 4d.; in 1897, £60 13s. 9d.; in 1898, £60 4s. 11d.; in 1899, £61 14s. 4d.; in 1900, £61 17s. 3d.; in 1901, £62 16s. 10d.; and in 1902, £65 12s. 4d. But, when considering the increase of the amount of debt per head as a burden on the people, regard should be paid to the effect of conversions on the amounts paid by way of charges of the public debt out of the revenue year by year. Remarks on this subject are made, and figures given, further on, under the head of interest and sinking funds; also previously under revenue, which is shown to have been relieved substantially since the year 1890.

Years ended 31st March.	Estimated or Census Population.	Amount of Debentures and Stock in Circulation.	Gross Indebtedness per Head of European Population.	Amount of Sinking Fund accrued.	Net Indebtedness.	Net Indebtedness per Head of European Population
		£	£ s. d.	£	£	£ s. d.
1890 ..	618,657	38,667,950	62 10 1	1,386,185	37,281,765	60 5 3
1891 ..	626,658	38,830,350	61 19 4	1,487,042	37,343,308	59 11 10
1892 ..	637,472	38,713,068	60 14 8	1,037,862	37,675,206	59 2 0
1893 ..	656,187	39,257,840	59 16 7	1,113,770	38,144,070	58 2 7
1894 ..	676,747	39,826,415	58 17 0	951,924	38,874,491	57 8 10
1895 ..	689,475	40,386,964	58 11 6	751,932	39,635,032	57 9 9
1896 ..	703,187	43,050,780	61 4 5	778,891	42,271,889	60 2 4
1897 ..	717,649	44,366,618	61 16 5	814,294	43,552,324	60 13 9
1898 ..	731,713	44,963,424	61 9 0	881,903	44,081,521	60 4 11
1899 ..	746,673	46,938,006	62 17 3	857,279	46,080,727	61 14 4
1900 ..	758,616	47,874,452	63 2 2	944,375	46,930,077	61 17 3
1901 ..	772,719	49,591,245	64 3 7	1,033,494	48,557,751	62 16 10
1902 ..	789,994	52,966,447	67 0 11	1,128,816	51,837,631	65 12 4

The debt of the colony as above stated does not include the unpaid loans raised by the several local bodies, amounting at the end of March, 1901, to £7,563,069, of which sum £5,510,800 was raised outside the colony. These are referred to in dealing with the finance of local bodies.

Increase of Gross Public Debt.

The increase of the gross public debt since the 31st March, 1891, amounts to £14,136,097. A schedule of items composing this sum is subjoined. It shows the purposes to which the money raised has been or is being devoted. The second largest item is £2,740,000 raised for advances to settlers, which represents investments by the Govern-

ment bearing interest and lent on continually improving security, the principal being repaid by instalments.

Other items which may be considered to represent interest-bearing investments are those under the heads "Land Settlement," "Native Land Purchases," "Loans to Local Bodies," "Lands Improvement," "N.Z. Consols," and "Bank of N.Z. Preferred Shares."

	£	£
Gross Public Debt, 31st March, 1902		52,966,447
" 31st March, 1891		38,830,350
Increase		£14,136,097
Native Land Purchases	649,700	
Land Settlement (including Cheviot) ..	2,772,716	
Loans to Local Bodies	1,419,100	
Lands Improvement	500,000	
Advances to Settlers	2,740,000	
Bank of N.Z. Preferred Shares ..	500,000	
N.Z. Consols	468,324	
District Railways	47,000	
Public Works	4,585,000	
Increase by Conversions	654,229	
Sinking Fund Accretions	1,464,700	
Naval and Military Settlers	27,226	
Government Accident Insurance ..	2,000	
Advances to Dairy Companies ..	1,781	
		£ 15,831,776
Less Redemptions—		
Consolidated Stock Act, 1884, Debentures	1,260,420	
Other Debentures	435,259	
		1,695,679
Total net increase		£14,136,097

Interest and Sinking Fund.

Of the total amount of outstanding public debt at the end of March, 1902—viz., £52,966,447—more than thirty-three millions sterling bore interest at the rate of 4 per cent., over ten millions sterling at 3½ per cent., and more than eight millions sterling at 3 per cent. The following are the rates of interest payable on the complete public debt:—

Rates of Interest.	Amount at each Rate. £
6 per cent.	56,000
5 per cent.	609,400
4½ per cent.	52,900
4 per cent.	33,427,852
3½ per cent.	349,000
3½ per cent.	10,438,338*
3 per cent.	8,032,957
Total	£52,966,447

* Including £465,000 on which the interest paid was one quarter per cent. over bank rate: varying rate, averaging 3½ per cent.

The total amount of *interest* payable to bondholders on the full amount of the public debt as quoted above is £1,992,743, which gives an average rate of £3 15s. 3d. per £100. On the total public debt outstanding on the 31st March, 1891, the average interest charge was £4 10s. 3d. per £100. During the period 1891–1902, therefore, the average rate is found to have declined nearly 17 per cent.

The above refers to interest payable to bondholders only, and has nothing to do with sinking-fund requirements, which are included in the whole annual charge of the public debt.

The *actual payments* during eight years for interest *and sinking fund out of the Consolidated Fund* are shown hereunder, together with the percentage of ordinary and territorial revenue absorbed by the public debt charges:—

Year ended 31st March.	Amounts actually paid for Interest and Sinking Fund out of the Consolidated Fund.					Rate per Head of Mean Population.	Percentage of Revenue absorbed by Public Debt Charges.
	Public Debt.			Treasury Bills.	Total.		
	Interest.	Sinking Fund.	Total.	Interest.			
	£	£	£	£	£	£ s. d.	
1895 ..	1,619,925	57,979	1,677,904	38,985	1,716,889	2 10 3	38·96
1896 ..	1,602,933	41,183	1,644,116	39,659	1,683,775	2 8 4	36·96
1897 ..	1,630,577	41,858	1,672,435	37,034	1,709,469	2 8 2	35·62
1898 ..	1,668,697	43,380	1,712,077	29,336	1,741,413	2 8 1	34·28
1899 ..	1,689,749	44,651	1,734,400	33,068	1,767,468	2 7 10	33·61
1900 ..	1,674,618	46,073	1,720,691	28,703	1,749,394	2 6 6	31·07
1901 ..	1,671,552	46,364	1,717,916	27,700	1,745,616	2 5 6	29·83
1902 ..	1,722,819	47,724	1,770,543	33,396	1,803,939	2 6 2	29·80

NOTE.—The alteration made in 1894-95 of the system which previously obtained in dealing with the drawing loan of 1867 has affected the comparison of the figures for the last eight years with those preceding, The total amount actually paid for interest and sinking fund in 1889-90 was, under the old system, £1,897,602. The figures for each of the years ended March, 1890 to 1894 inclusive, will be found in the Year-book for 1899.

The above amounts shown as interest and sinking fund do not comprise the whole of the interest and sinking fund paid by the Government in respect of moneys raised by the issue of loans. Thus in respect of loans raised under the Land for Settlements Acts, the Government Advances to Settlers Acts, and for the purchase of the Cheviot Estate, the interest, although made a charge upon the Consolidated Fund, is recovered from the receipts derived from the leasing of the lands, or from instalments paid by borrowers. The amount of interest thus charged and recovered during last year was £148,691. Such interest does not become a burden upon the taxpayer, and consequently is not included in the figures upon which the rate per head of mean population is calculated.

The amount actually paid for interest and sinking fund out of the Consolidated Fund during 1901–1902 was £58,323 more than

that for the previous year, and the rate of charge per head of population increased somewhat.

The lowering of the burden on the revenue of the Consolidated Fund by the lessened charges of the public debt is shown in the last column of the table.

The securities in which the sinking funds were held as on the 31st March, 1902, are specified in the statement following:—

STATEMENT of the SECURITIES in which the SINKING FUNDS of the several LOANS were invested on the 31st March, 1902.

Investments in—	£	s.	d.
New Zealand 5-per-cent. Debentures	3,470	0	0
" 4½-per-cent. Debentures	1,700	0	0
" 3½-per-cent. Debentures	1,250	0	0
" 4-per-cent. Inscribed Stock	129,754	19	6
" 3¼-per-cent. Inscribed Stock	2,571	3	7
County of Tauranga 5-per-cent. Debentures	60	0	0
Borough of Brunner 6-per-cent. Debentures	840	0	0
Borough of Hokitika 6-per-cent. Debentures	1,860	0	0
Borough of Patea 4½-per-cent. Debentures	200	0	0
Borough of Tauranga 5-per-cent. Debentures	200	0	0
Westport Harbour Board 4-per-cent. Debentures	550	0	0
Waimakariri-Ashley Water-supply Board 5-per-cent. Debentures	320	0	0
Wellington and Manawatu Railway Company 5-per-cent. Debentures	540	0	0
Government Loans to Local Bodies 3½-per-cent. Debentures	400	0	0
Land for Settlements 4-per-cent. Debentures	2,060	0	0
Mortgages	82,700	0	0
New South Wales 4-per-cent. Debentures	20,800	0	0
New South Wales 4-per-cent. Stock	5,486	6	7
New South Wales 3½-per-cent. Stock	84,269	13	4
New South Wales 3-per-cent. Stock	66,286	14	7
Victoria 4-per-cent. Debentures	15,000	0	0
Victoria 4-per-cent. Stock	43,233	17	4
Victoria 3½-per-cent. Stock	83,341	9	6
Victoria 3-per-cent. Stock	27,158	9	10
South Australia 4-per-cent. Debentures	24,700	0	0
South Australia 4-per-cent. Stock	4,851	0	5
South Australia 3½-per-cent. Stock	38,068	11	6
South Australia 3-per-cent. Stock	114,819	12	6
Canada 4-per-cent. Debentures	18,200	0	0
Canada 4-per-cent. Stock	60,000	0	0
Canada 3½-per-cent. Stock	34,022	11	8
Canada 3-per-cent. Stock	33,226	12	3
Canada 2½ per-cent. Stock	13,666	15	11
Tasmania 3-per-cent. Stock	4,124	13	4
Ceylon 3-per-cent. Stock	6,000	0	0
Leeds Corporation 3-per-cent. Stock	14,000	0	0
	939,732	11	10
Cash balance on 31st March, 1902	189,083	10	0
Total	£1,128,816	1	10

Flotation of Loans.

Of the gross public debt of the colony outstanding on 31st March, 1902, £46,430,126 was raised in London, £181,600 in Australia, and £6,354,721 in New Zealand; and of the total amount £43,812,750 was held as inscribed stock, and £9,153,697 in the form of debentures. Details are given hereunder:—

Kind of Stock.	Floated in London.	Australia.	New Zealand.	Total.
Debentures ..	3,085,700	181,600	5,886,397	9,153,697
Inscribed stock ..	43,344,426	..	468,324	43,812,750
Total ..	46,430,126	181,600	6,354,721	52,966,447

Prices of New Zealand Stock.

The highest and lowest London prices for the New Zealand 4, 3½, and 3 per cent. stock, taken over a range of thirteen years, are quoted:—

QUOTATIONS, NEW ZEALAND STOCK.

Year.	4-per-cents. Highest.	4-per-cents. Lowest.	3½-per-cents. Highest.	3½-per-cents. Lowest.	3-per-cents. Highest.	3-per-cents. Lowest.
1888	104½	96¼	..	..	..	..
1889	109¼	99⅝	..	..	..	..
1890	109⅛	102¼	98⅝	93¼	..	..
1891	107½	100	98¼	91⅛	..	..
1892	106⅝	100	98	91½	..	..
1893	107¼	97	97½	90	..	..
1894	109⅞	105⅜	103½	96¼	..	..
1895	113½	105⅝	107¼	100	95¾	91
1896	118¼	106½	110⅜	101½	103½	90
1897	117	112⅜	111	104¾	102	99½
1898	116⅞	108	109⅞	103	101½	96½
1899	116½	105½	109	102	99¼	94¼
1900	113¼	109	106¾	103⅜	98½	95¼
1901	115⅜	110¾	109⅞	104⅛	99½	93⅛

Prices of Australasian Stock.

The prices of stock of Australasia in London for the years 1893 and 1897 show the position as affected by the financial and banking crisis in the former year, and the improvement that had taken place since 1893 and as late as 1897:—

State or Colony.	Year when Stock Redeemable.	Prices, 1893.* Highest.	Prices, 1893.* Lowest.	Prices, 1897. Highest.	Prices, 1897. Lowest.
	4-PER-CENTS.				
Queensland	1915-24	103½	89	116	111
New South Wales	1933	111	97½	123¾	117½
Victoria	1920	103¼	95	115	111⅛
South Australia	1917-36	105⅜	93	114½	111¼
Western Australia	1934	107½	102	123¾	120
Tasmania	1911†	102⅜	97¼	110	105
New Zealand	1929	107¼	97	117	112⅜

* Figures taken from Victorian Year-book, 1894. † Debentures.

State or Colony.	Year when Stock Redeemable.	Prices, 1893.*		Prices, 1897.	
		Highest.	Lowest.	Highest.	Lowest.
		3½-PER-CENTS.			
Queensland	1924	92¼	75	108⅝	104⅝
New South Wales	1924	97⅛	83⅛	111½	107¾
Victoria	1923	93⅛	79†	108⅜	104½
South Australia	1939	96	85½	113½	109¾
Tasmania	1920–40‡	96	84	111⅛	105½
New Zealand	1940	97½	90	111	104¾

* Figures taken from Victorian Year-book, 1894. † Rate for week ending 19th May, time of Australian banking crisis. ‡ At any time on or after 1st January, 1920, on giving twelve months' notice.

Public Debt of Australasia.

The following figures, which, with the exception of those for New Zealand, are taken from Mr. Coghlan's Australasian Statistics, show the public debt of each State or colony in 1901 :—

State or Colony.	Date.	Public Debt.			Debt per Head of Population
		Fixed Debt.	Floating Debt.	Total.	
		£	£	£	£ s. d.
Queensland ..	30 June, 1901	36,849,314	1,000	36,850,314	73 19 2
New South Wales	30 June, 1901	61,479,662	5,881,584	67,361,246	49 7 3
Victoria ..	30 June, 1901	53,071,047	2,335,071	55,406,118	46 5 1
South Australia ..	30 June, 1901	26,423,805	..	26,423,805	73 2 6
Western Australia	30 June, 1901	11,709,430	1,000,000	12,709,430	67 14 6
Tasmania ..	31 Dec., 1900	8,511,005	..	8,511,005	47 17 8
New Zealand ..	31 Mar,, 1901	49,591,245	..	49,591,245	64 3 7*

* As shown previously (see page 473), the amount of accrued sinking fund reduces this by £1 6s. 9d. per head.

The amount of indebtedness per head of population in June, 1901, in South Australia, Western Australia, and Queensland was thus greater than that for New Zealand in March, 1901.

Public Works in New Zealand.

The burden of a public debt depends greatly on the measure in which it is expended on reproductive works, and on the degree of prosperity enjoyed by the people. The generally rugged character

of this country, and the natural difficulties appertaining to the sites of many of the towns, soon necessitated a large outlay on roads and public works. The need was fully recognised, and to some extent met, by the Provincial Governments, which have justly received great credit for their far-seeing and liberal exertions. A great deal of road-making, often of a very costly character, was accomplished, harbour and other improvements begun, and immigration encouraged. Some railways were made in Canterbury, Otago, and Southland. The City of Christchurch and the Canterbury Plains were connected with the Port of Lyttelton by a railway, which required the construction of a long and very costly tunnel through the intervening range of hills. In Otago private enterprise, backed by the guarantee of the Provincial Government, built a railway from Dunedin to Port Chalmers, and some miles of line were made in Southland from the Town of Invercargill into the interior; but no general and comprehensive scheme of public works could be carried out by the separate exertions of the Provincial Governments. In 1870, therefore, the General Government brought forward its public-works and immigration policy, by which it was proposed to raise a loan of ten millions for the construction of main trunk railways, roads, and other public works of importance to the colony as a whole, as well as for the promotion of immigration on a large scale, the expenditure to be spread over a period of ten years. This policy was accepted by the Legislature, and embodied in "The Immigration and Public Works Act, 1870."

The demands for local railways and other works soon caused the original proposals to be exceeded, and entailed an expenditure at a much more rapid rate and to a far greater amount than was originally contemplated. Although many of the works undertaken have been directly unremunerative, yet the effect of the policy as a whole has been largely to develop the settlement of the country, and to increase enormously the value of landed property; land in parts which before the construction of railways was valued at from £1 to £2 per acre having been subsequently sold at prices varying from £10 to £20 per acre. Moreover, the railway and telegraph lines yield a revenue which covers a large portion of the interest on their cost after paying working-expenses.

Utilisation of Money composing Public Debt.

A statement is supplied, based on figures taken from the Colonia Treasurer's Budget of 1897 (to which the necessary additions have been made), showing the purposes for which the money forming the public debt of the colony was raised or voted.

But the amounts in the items must be regarded as only approximations to the actual facts. The information is merely indicative of the truth, and is a revision of what was given in the Year-book, 1899, which was found to be not as near to correctness as possible in places.

PUBLIC DEBT OF NEW ZEALAND, MARCH, 1902, SHOWING APPROXIMATELY THE AMOUNTS RAISED OR VOTED UNDER VARIOUS HEADS, ARRANGED IN THREE CLASSES.

		On 31st March, 1902. £
a.)	Railways	17,421,000*
	Lands improvement (roads and bridges)	5,193,000
	Public works and buildings	4,014,000
	Land-purchases	2,183,000
	Immigration	2,459,000
	Maori war	2,357,000
	Defence	1,816,000
	Telegraphs	900,000
	Goldfields and coal-mines	756,000
	Lighthouses and harbours	512,000
	Tourist and health resorts	12,000
(*b.*)	Advances to settlers	2,740,000
	Loans to local bodies	1,698,000
	Purchase of lands for settlement	2,772,000
	Bank of New Zealand preferred shares	500,000
	New Zealand Consols deposits	470,000
(*c.*)	Deficiencies in revenue, charges and expenses of raising loans, provincial liabilities, and miscellaneous expenditure	7,163,000

* NOTE.—Only a portion of expenditure of old Provincial Governments on railways became public debt of the colony. The total expenditure on railways (Provincial and General Government) to 31st March, 1902, was over nineteen millions sterling, which includes £1,104,281 spent by the Provincial Governments, of which £82,259 was for the Dunedin and Port Chalmers line.

It will be found that on the 31st March, 1902, out of a total debt of £52,966,447 the amounts allocated for services formed approximately the following proportions of the whole :—

	Per Cent.		Per Cent.
For Railways	32·91	For Maori war	4·45
„ Lands improvement (roads and bridges)	9·82	„ Defence	3·43
„ Public works and buildings	7·58	„ Telegraphs	1·70
„ Land-purchases	4·12	„ Goldfields and coal-mines	1·43
„ Immigration	4·64	„ Lighthouses and harbours	0·97
		„ Tourist and health resorts	0·02

The total sum is divided into three classes in the table, of which (*a*) is composed of the various services above referred to, and the total of which forms 71·07 per cent. of the whole debt in 1902. Class (*b*) consists of moneys devoted to what may be termed investments, being 15·41 per cent. of the total; (*c*) moneys paid away in charges and expenses of raising loans, also to meet deficiencies of revenue, besides old provincial liabilities, and miscellaneous expenditure, forming 13·52 per cent. of the debt.

The figures given as to railways do not include all the sums spent by the Provincial Governments, as stated in the note to the table, nor do the figures in some other items agree with those given elsewhere, made up from tables showing the expenditure out of the Public Works Fund, which, as previously explained, is augmented by contributions from the Consolidated Revenue Account.

Expenditure out of The Public Works Fund.

The net expenditure, under all heads, of the Public Works Fund from 1870 to the 31st March, 1902, can be given correctly, but this fund, as stated previously, is not altogether composed of money charged to the public debt. It had received £32,717,368 from loans and £4,167,591 by way of receipts in aid on the latter date. The money received by way of aid included £3,205,000, transferred from the Consolidated Fund during the last eleven financial years, out of surplus revenue Thirty-six millions sterling were spent since the year 1870 up to March last, and the items given below exhibit the nature of the works, &c., with amount for each.

NET EXPENDITURE OF PUBLIC WORKS FUND FROM 1870 TO 31ST MARCH, 1902.

Expenditure on—	£
Immigration	2,147,859
Public Works, Departmental	477,087
Railways, including Surveys of New Lines	18,501,967
Roads	5,966,209
Land-purchases	1,983,231
Development of Goldfields	701,679
Telegraph Extension	937,887
Public Buildings	2,655,249
Lighthouses, Harbour-works, and Defences	977,772
Contingent Defence	696,836
Rates on Native Lands	64,797
Thermal Springs	14,600
Tourist and Health Resorts	11,260
Lands Improvement	1,741
Charges and Expenses of raising Loans	1,063,391
Coal-mines	10,835
Interest and Sinking Fund	218,500
Total	£36,430,900

Expenditure on Railways.

The railway expenditure during each of six quinquennial periods and for the years ended 31st March, 1901 and 1902, since the initiation of the public-works policy has been :—

	£
1st July, 1870, to 30th June, 1875	3,575,362
1st July, 1875, to 31st March, 1880	4,919,712
1st April, 1880, to 31st March, 1885	3,120,680
1st April, 1885, to 31st March, 1890	2,308,319
1st April, 1890, to 31st March, 1895	978,498
1st April, 1895, to 31st March, 1900	1,547,732
1st April, 1900, to 31st March, 1901	717,723
1st April, 1901, to 31st March, 1902	1,333,941
Total	£18,501,967

New Zealand's expenditure on railways is, with one exception, that of Tasmania, the lowest per head of the population of any of the Australian States. The next table shows the cost of railway-works, the mileage, the average cost per mile, the population, and the cost per head of the population in New Zealand and the several States referred to:—

State or Colony.	Year ended	Cost of Construction of Open Lines.	Average No. of Miles of Line open.	Average Cost per Mile.	Estimated Population	Cost per Head of Population		
		£		£		£	s.	d.
Queensland ..	30 June, 1901	19,739,495	2,801	7,047	502,892	39	5	0
New South Wales	30 June, 1901	38,932,781	2,818	13,682	1,366,410	28	9	10
Victoria ..	30 June, 1901	40,145,404	3,228	12,402	1,204,475	33	6	9
South Australia*	30 June, 1901	14,326,765	1,882	7,613	362,604	39	10	3
West'n Australia	30 June, 1901	7,098,239	1,355	5,239	187,660	37	16	6
Tasmania ..	31 Dec., 1900	3,659,069	445	8,339	172,979	21	3	1
New Zealand ..	31 Mar., 1902	18,170,722	2,227	8,159	833,177	21	16	2†

* Including Northern Territory. † Maoris included.

In the foregoing table the cost per head of population for railway-construction is shown to have been between thirty-three and thirty-eight pounds sterling in the States of Victoria and Western Australia; over thirty-nine pounds in South Australia and Queensland; in New South Wales it was over twenty-eight pounds; but in New Zealand the cost has been nearly twenty-two pounds, and in Tasmania a little over twenty-one pounds, per head of population.

SUPPLEMENTARY.

The Assets Realisation Board.

On page 402 reference is made to the establishment of an Assets Realisation Board for the purchase, in connection with the affairs of the Bank of New Zealand, of all the assets of the Estates Company and of the Auckland Agricultural Company.

The General Manager reports that during the year ended 31st March last (1902) sales to the extent of £139,898 have been made, an increase of £38,187 over those of the previous year. Of the total value (£139,898) £117,116 represents country and £22,782 town lands.

The sales for the period 1895–1902, including stock, show a total of £825,180 received.

On 31st March, 1902, the proportion of total sales from time of starting to the book-cost of all estates (£2,731,706) was 30·2; and to land-tax valuation, *plus* 10 per cent. for sundry properties, with the manager's valuation for station properties (which together total £1,895,179), it was 43·53 per cent.

Particulars of operations are—

	£
Sales of properties finally realised, 1895–1902 (including stock)	405,527
Properties partially realised, 1895–1902	419,653
	£825,180

The book-cost of the estates in respect of which the sales were finally closed was £604,393. These properties are shown above to have realised £405,527, leaving a deficiency of £198,866, including the realisation expenses, &c.

The localities of the sales are as follows :—

	Estates.	Farms.	Town Sections.	Suburban Sections.	£
Auckland ..	5	149	608	263	253,615
Canterbury ..	3	73	19	63	235,650
Hawke's Bay ..	2	..	9	..	104,140
Otago	2	9	565	124	67,540
Marlborough ..	1	4	65	6	20,414
Wellington		17	31	1	89,631
					770,990
Proceeds: realisation of sundry assets					7,868
Stock sales on properties finally realised					46,322
					£825,180

Special Banking Legislation.

A synopsis of the Banking Acts under which guarantees have been given by the Government of New Zealand will be found on pages 400 to 403 *ante*.

MISCELLANEOUS STATISTICS.

I.—Progress of the Colony, Years 1901 and 1891.

Summary.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		772,719	626,658	146,061
Value of land and improvements—				
Unimproved value	(1902)	£94,847,727	75,787,895	19,059,832
Value of improvements ..	"	£59,968,405	46,365,297	13,603,108
Land in cultivation—				
Holdings (in cultivation) ..	No.	*63,982	38,083	*25,899
Total area (including sown grasses and land in fallow, but excluding gardens and orchards (44,520 acres) and plantations of forest trees (48,770 acres) in 1901 ..	Acres	13,083,971	8,462,495	4,621,476
In crops	"	1,407,846	1,285,768	122,078
In sown grasses	"	11,620,178	6,966,218	4,653,960
In fallow	"	55,947	210,509	−154,562
Live-stock—				
Horses	No.	279,672	211,040	68,632
Cattle	"	1,361,784	831,831	529,953
Dairy cows (included above) ..	"	381,492	206,906	174,586
Sheep	"	20,233,099	16,753,752	3,479,347

Auckland Provincial District, 1901-1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		175,938	133,159	42,779
Value of land and improvements—				
Unimproved value	(1902)	£15,462,182	12,196,424	3,265,758
Value of improvements ..	"	£11,444,807	8,830,892	2,613,915
Land in cultivation—				
Holdings	No.	*15,994	8,608	*7,386
Total area (including sown grasses and land in fallow)	Acres	2,168,913	1,165,441	1,003,472
In crops	"	109,921	70,038	39,883
In sown grasses	"	2,044,019	1,060,741	983,278
In fallow	"	15,973	34,662	−18,689
Live-stock—				
Horses	No.	73,653	42,826	30,827
Cattle	"	370,269	234,306	135,963
Dairy cows (included above) ..	"	75,436	46,182	29,254
Sheep	"	2,116,594	1,500,102	616,492

Note.—The minus sign (−) signifies decrease.

*The comparison is not quite a fair one, as in 1901, holdings of exactly one acre in extent, and certain holdings occupied by Maoris, have been included by the Department of Agriculture, which was not done in 1891.

TARANAKI PROVINCIAL DISTRICT, 1901–1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		37,855	22,065	15,790
Value of land and improvements—				
Unimproved value	(1902)	£6,288,755	2,982,644	3,306,110
Value of improvements ..	"	£3,783,895	1,529,045	2,254,851
Land in cultivation—				
Holdings	No.	*4,389	2,504	*1,885
Total area (including sown grasses and land in fallow)	Acres	781,686	308,072	473,614
In crops	"	21,625	15,380	6,245
In sown grasses	"	759,601	291,471	468,130
In fallow	"	460	1,221	−761
Live-stock—				
Horses	No.	18,821	10,915	7,906
Cattle	"	224,970	103,356	121,614
Dairy cows (included above) ..	"	83,268	26,951	56,317
Sheep	"	564,392	240,471	323,921

HAWKE'S BAY PROVINCIAL DISTRICT, 1901–1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		35,424	28,506	6,918
Value of land and improvements—				
Unimproved value	(1902)	£8,047,453	6,704,820	1,342,633
Value of improvements ..	"	£4,509,879	3,864,044	645,835
Land in cultivation—				
Holdings	No.	*3,153	1,913	*1,240
Total area (including sown grasses and land in fallow)	Acres	1,844,171	1,085,454	758,717
In crops	"	30,848	36,218	−5,370
In sown grasses	"	1,812,113	1,021,277	790,836
In fallow	"	1,210	27,959	−26,749
Live-stock—				
Horses	No.	19,510	13,480	6,030
Cattle	"	115,642	55,009	60,633
Dairy cows (included above) ..	"	14,568	9,039	5,529
Sheep	"	3,298,421	2,668,893	629,528

WELLINGTON PROVINCIAL DISTRICT, 1901–1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		141,354	97,725	43,629
Value of land and improvements—				
Unimproved value	(1902)	£19,824,495	12,456,612	7,367,883
Value of improvements ..	"	£14,078,508	8,874,970	5,203,538
Land in cultivation—				
Holdings	No.	*10,537	5,808	*4,729
Total area (including sown grasses and land in fallow)	Acres	2,637,323	1,508,587	1,128,736
In crops	"	87,256	63,313	23,943
In sown grasses	"	2,548,418	1,440,893	1,107,525
In fallow	"	1,649	4,381	−2,732
Live-stock—				
Horses	No.	44,593	30,542	14,051
Cattle	"	294,439	155,466	138,973
Dairy cows (included above) ..	"	83,488	30,615	52,873
Sheep	"	4,239,538	2,750,461	1,489,077

NOTE.—The minus sign (−) denotes decrease.

* See note on page 484.

MARLBOROUGH, NELSON, AND WESTLAND PROVINCIAL DISTRICTS, 1901–1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris)—				
Marlborough Provincial District ..		13,326	12,964	362
Nelson Provincial District ..		37,915	35,154	2,761
Westland Provincial District ..		14,506	15,929	−1,423
Value of land and improvements—				
Unimproved value	(1902)	£7,230,689	7,395,637	−164,948
Value of improvements ..	"	£4,049,036	3,555,449	493,587
Land in cultivation—				
Holdings	No.	*5,223	3,200	*2,023
Total area (including sown grasses and land in fallow)	Acres	927,210	475,860	451,350
In crops	"	70,481	55,431	15,050
In sown grasses	"	855,748	411,199	444,549
In fallow	"	981	9,230	−8,249
Live-stock—				
Horses	No.	17,079	15,181	1,898
Cattle	"	63,383	48,816	14,567
Dairy cows (included above) ..	"	20,077	13,759	6,318
Sheep	"	1,717,256	1,631,456	85,800

CANTERBURY PROVINCIAL DISTRICT, 1901–1891.

		1901.	1891.	Increase.
Population census (exclusive of Maoris) ..		143,041	128,392	14,649
Value of land and improvements—				
Unimproved value	(1902)	£21,502,307	19,148,867	2,353,440
Value of improvements ..	"	£10,492,226	10,073,196	419,030
Land in cultivation—				
Holdings	No.	*10,853	7,563	*3,290
Total area (including sown grasses and land in fallow)	Acres	2,443,393	2,034,813	408,580
In crops	"	577,026	566,153	10,873
In sown grasses	"	1,856,927	1,409,785	447,142
In fallow	"	9,440	58,875	−49,435
Live-stock—				
Horses	No.	49,652	47,567	2,085
Cattle	"	98,834	82,058	16,776
Dairy cows (included above) ..	"	36,820	31,250	5,570
Sheep	"	4,318,887	3,559,533	759,354

OTAGO PROVINCIAL DISTRICT, 1901–1891.

		1901.	1891.	Increase
Population census (exclusive of Maoris) ..		173,145	153,097	20,048
Value of land and improvements—				
Unimproved value	(1902)	£16,491,846	14,902,891	1,588,955
Value of improvements ..	"	£11,610,054	9,637,701	1,972,353
Land in cultivation—				
Holdings	No.	*13,833	8,487	*5,346
Total area (including sown grasses and land in fallow)	Acres	2,280,275	1,884,268	396,007
In crops	"	510,689	479,235	31,454
In sown grasses	"	1,743,352	1,330,852	412,500
In fallow	"	26,234	74,181	−47,947
Live-stock—				
Horses	No.	56,364	50,529	5,835
Cattle	"	194,247	152,820	41,427
Dairy cows (included above) ..	"	67,835	49,110	18,725
Sheep	"	3,978,011	4,402,836	−424,825

NOTE.—The minus sign (−) denotes decrease.

* See note on page 484.

The population of the Chatham and Kermadec Islands, which are not included in any provincial district, was 215 persons in 1901, and 290 in 1891.

II.—The Totalisator.

Year.	No. of Totalisator Licenses issued for Meetings held during Financial Year.	Days.	Percentage paid to Treasury.	Total Amount Invested by the Public.
			£	£
1889–90	187	241	..	..
1890–91	219	278	..	..
1891–92	234	300	7,591	506,078
1892–93	240	307	10,800	720,029
1893–94	247	318	10,375	691,673
1894–95	207	268	10,446	696,456
1895–96	170	256	11,156	743,763
1896–97	158	250	11,911	794,096
1897–98	155	268	13,297	886,567
1898–99	144	250	13,695	912,969
1899–1900	154	278	15,983	1,065,580
1900–1901	153	278	17,541	1,168,732
1901–1902	165	309	19,040	1,275,813

N.B.—The years used for purposes of the table are financial years, not the racing years. This accounts for the number of licenses issued in some of the periods being over the legal limit for one year.

III.—Licenses under the Gaming and Lotteries Act, granted to Religious Denominations.

Return of Licenses granted by the Colonial Secretary under "The Gaming and Lotteries Act, 1881," to Persons connected with Religious Denominations.

Year.	Total Number of Licenses granted.	Church of England.	Presbyterian Church.	Roman Catholic Church.	Jewish Church.	Not stated.
1894–95	46	9	10	23	..	4
1895–96	48	8	1	18	..	21
1896–97	62	30	3	29	..	..
1897–98	70	35	2	32	1	..
1898–99	40	14	..	26	..	..
1899–1900	42	13	..	29	..	..
1900–1901	55	21	..	33	..	1

IV.—Contingents for South Africa.

Ten contingents have been despatched from New Zealand between the 21st October, 1899, and the 19th April, 1902, consisting in all of 6,411 officers, non-commissioned officers, and men, with 6,612 horses. The number forming the different contingents, which were composed of mounted infantry and bushmen, are given in tabular form :—

Return of New Zealand Troops despatched on Active Service in South Africa.

No. of Contingent.	Date of Sailing.	Mounted Infantry.		Bushmen.	
		Officers, n.c.o., and men.	Horses.	Officers, n.c.o., and men.	Horses.
1	21st October, 1899 ..	215	250	..	..
2	20th January, 1900 ..	258	304	..	..
3	17th February, 1900 ..	264	277	..	..
	24th February, 1900 ..	..	96*	..	..
4	24th and 31st March, 1900	466	520	..	..
5	31st March, 1900 ..	..	..	523	533
Reserve	31st March, 1900 ..	71	..	..	..
	19th May, 1900	..	180*	..	..
	16th June, 1900	..	500*	..	..
6	30th January, 1901 ..	..	..	578	580
7	6th April, 1901	..	..	600	..
Details	8th February, 1902 ..	200	..	..	..
8	8th February, 1902 ..	996	1,152	..	..
9	19th March, 1902 ..	1,072	1,099	..	..
10	19th April, 1902	1,006	1,121	..	..
Details	19th April, 1902	162	..	..	..
		4,710	5,499	1,701	1,113

* Remounts for various contingents.

Totals.

Officers, non-commissioned officers, and men.	Horses.
1,274	2,127
523	533
578	580
600	..
200	..
996	1,152
1,072	1,099
1,006 162	1,121
6,411	6,612

The names of the vessels by which these troops were despatched, and the number of men conveyed in each vessel, were: s.s. "Waiwera," 21st October, 1899, 215 men; s.s. "Waiwera," 21st January, 1900, 258 men; s.s. "Knight Templar," 17th February, 1900, 264 men; s.s. "Monowai," 24th March, 1900, 245 men; s.s. "Maori," 31st March, 1900, 209 men; s.s. "Waimate," 31st March, 1900, 278 men; s.s. "Gymeric," 31st March, 1900, 328 men; s.s. "Cornwall," 30th January, 1901, 578 officers, non-commissioned officers, and men; s.s. "Gulf of Taranto," 6th April, 1901, 600 officers, non-commissioned officers, and men; s.s. "Surrey," 1st February, 1902, 601 officers, non-commissioned officers and men; s.s. "Cornwall," 8th February, 1902, 595 officers, non-commissioned officers and men; s.s. "Kent," 12th March, 1902, 526 officers, non-commissioned officers and men; s.s. "Devon," 19th March, 1902, 546 officers, non-commissioned officers and men; s.s. "Drayton Grange," 14th April, 1902, 591 officers, non-commissioned officers, and men; s.s. "Norfolk," 19th April, 1902, 577 officers, non-commissioned officers, and men.

PART III.—ARTICLES ON SPECIAL SUBJECTS.

SECTION I.

THE LAND SYSTEM OF NEW ZEALAND.

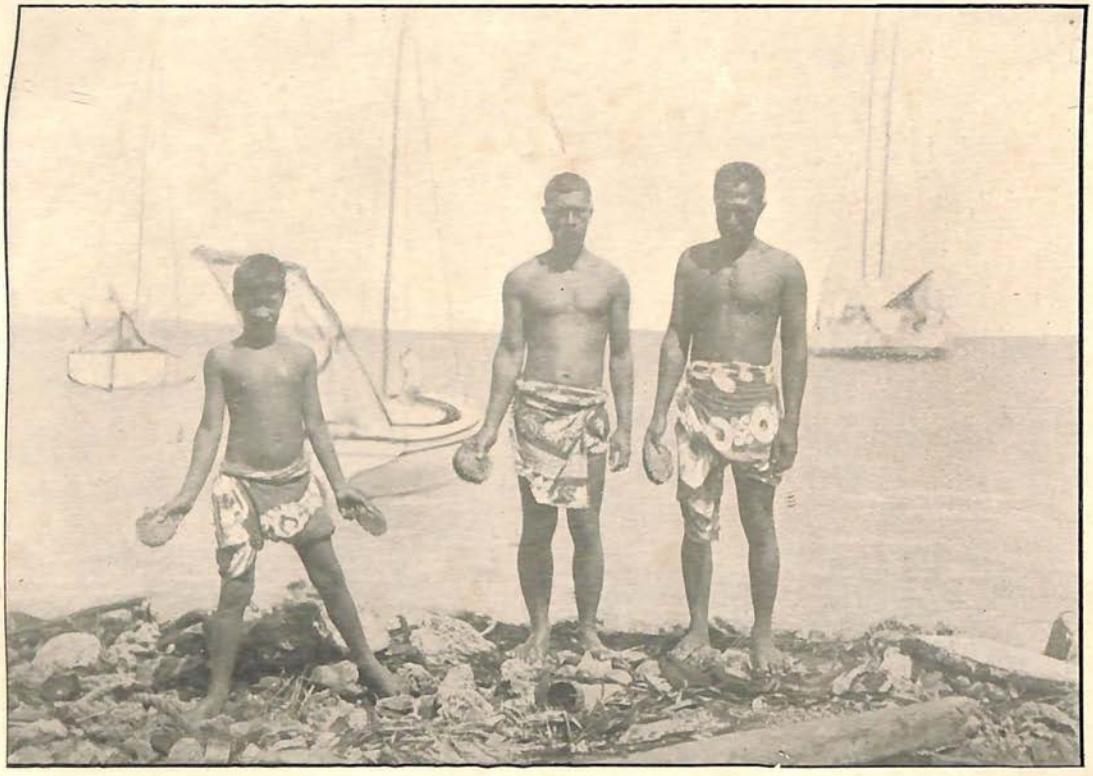
[By S. Percy Smith, F.R.G.S.]

The Crown lands of New Zealand are administered under "The Land Act, 1892," together with its amendments and the regulations made thereunder.

The distinguishing features of the present land system are the outcome of ideas which have been gradually coming to maturity for some years past in this colony. These features involve the principle of State ownership of the soil, with a perpetual tenancy in the occupier. This, whatever may be the difference in detail, is the prevailing characteristic of the several systems under which land may now be selected. In New Zealand this tendency to State ownership has taken a more pronounced form than in any of the Australian States. In point of fact, most of the Crown lands are now disposed of for 999 years. The rentals are based on the assessed value of the land at the time of disposal, without increase or recurring valuations. Under this system there is a fixity of tenure practically equal to freehold, and which, like freehold, necessarily carries with it the power of sale, sub-lease, mortgage, or disposition by will. At the same time the improvements made in the soil by cultivation, &c., are secured to the tenant should he from any cause be obliged to forfeit or surrender his lease.

The advantages of this system to the selector are manifest. When it is taken into consideration that, with few exceptions, the Crown lands are, in their prairie condition, incapable of profitable use, the advantage to the settler of setting free his capital to develop the capabilities of the soil, rather than having to expend it in the purchase of a freehold, is very apparent. One of the most striking benefits of this system is the advantage it gives to the man who, with little more capital than his strong right arm, is enabled to make a home for himself; which, under the freehold system, he would be unable to accomplish.

The values placed on the Crown lands are, as a rule, low, for the State does not so much seek to raise a revenue directly therefrom as to encourage the occupation of the lands by the people; this occupation secures an indirect increased revenue, besides the other advantages resulting from a numerous rural population.



Y.B.

Pearl-divers, Penrhyn Island.

Again, underlying the whole of the New Zealand land system is a further application of the principle of "the land for the people"—viz., the restriction in area which any man may hold. This subject has been forced upon the attention of the Legislature by defects in former systems, under which one individual with means at his command could appropriate large areas, to the exclusion of his less wealthy fellow-settler. Under existing conditions, where the price at which land is offered is fixed for ever, and where choice of selection is by ballot, every would-be settler has the same chance, and may hold under the Crown an equal area of land. The quantity that a selector may hold is so fixed as to encourage the class of moderate farmers, for up to the statutory limit the amount he may select is left almost entirely to himself. The Act defines the amount of land any one may hold at 640 acres of first-class, or 2,000 acres of second-class land. These limits apply to lands which are thrown open for optional selection, but in some cases, where the quality of the land is very good and the selectors many, the limit is by regulation made smaller.

In addition to the many advantages offered by the lease-in-perpetuity system, the Land Act provides others, to meet the wants of different classes. The general rule is that land thrown open for optional selection is offered to the public under three different tenures, the choice of which is left to the would-be settler.

The three tenures are:—

(1.) Cash, in which one-fifth of the purchase-money is paid down at once, and the remainder within thirty days. The final title is not given until certain improvements have been made on the land.

(2.) Lease with a purchasing clause, at a 5-per-cent. rental on the value of the land; the lease being for twenty-five years, with the right to purchase at the original upset price at any time after the first ten years and within twenty-five years, or to convert into a lease in perpetuity (3rd tenure).

(3.) Lease in perpetuity, at a rental of 4 per cent. on the capital value.

The present land-laws have been in force since the 1st November, 1892, and, therefore, the returns of the Department of Lands and Survey for the year ending the 31st March, 1902, in respect of lands the tenure of which is optional, will give a fair idea of that tenure most favoured by the public. The figures are:—

1. Cash: 237 selections, 26,739 acres.
2. Occupation with right of purchase: 447 selections, 128,893 acres.
3. Lease in perpetuity: 241 selections, 65,468 acres.

"The Land Act, 1892," provides for a special class of settlement called small-farm associations, which found favour with the public to a very considerable extent during the first three years after

the Act of 1892 came into force, but is now superseded to a large extent by the improved-farm settlement system. The small-farm association system provides that, where not less than twelve individuals have associated themselves together for mutual help, such an association can, with the approval of the Minister of Lands, select a block of land of not more than 11,000 acres, but there must be a selector to each 200 acres in the block. The extreme limit that one person may hold is fixed at 320 acres. Settlements of this class are held on lease in perpetuity, in a similar way to lands under the same tenure when thrown open for optional selection. The conditions of residence and improvement are the same. The system offers many advantages to the settler, so long as the blocks of land are judiciously chosen, having regard to quality of land, access, markets, and the probability of employment being obtained in the neighbourhood. In the eagerness to obtain lands on such easy terms these points have, in the past, not received sufficient attention by some of the associations, and in consequence they are not all successful.

Under "The Land Act, 1885," there was a somewhat similar system, but it allowed of the acquisition of the freehold. This is now being taken advantage of to a considerable extent.

The following figures show the amount of settlement by associations under both Acts on the 31st March, 1902. At that date there were 696 selectors, holding 126,219 acres under various tenures and in different parts of the country. Many of the settlements, which were carefully selected, are doing well. Others, where long and expensive roads have to be made to them, are as yet not very productive, and many selections have been abandoned.

The village-settlement system of New Zealand has excited much inquiry. This system provides: 1st, villages of one acre sections; 2nd, small farms of 100 acres. There has not been any great extension of this system in recent years. On the 31st March last there were 2,019 settlers holding 42,043 acres, and the total number of persons residing in these settlements was 1,329 and 690 non-resident, the amount advanced by Government for houses, clearing, &c., being £15,115, of which £3,631 had been returned. The total value of improvements on the lands at the same date was £158,752. The above figures include the settlement on reserves and endowments.

The improved-farm settlement system was first begun in order to find work for the people. Considerable areas of forest-clad Crown lands were set aside, and small contracts for the clearing, burning, and sowing these with grass have been let. In most cases the farms are selected or balloted for in their primitive state, and the settler is for a time paid for the improvements he makes, or, in other words, the cost of converting forest lands into grass lands is advanced from time to time by the Government. In other cases a piece of forest land is taken in hand, and men are employed at fixed rates in felling, burning, and grassing. When so much grass is laid

down as will give a good start, the land is opened for selection in sections of 50 to 200 acres and balloted for among the applicants. The farms are let on lease in perpetuity at a rental sufficient to cover the cost of clearing, &c., together with a fair rental of the land. Up to the 31st March, 1902, 54 settlements had been allocated, covering an area of 53,906 acres, situate in various parts of the colony. At that date 493 settlers had been allotted sections, who, together with their families, numbered 1,924 persons who were residing on the lands. They had felled and grassed 27,806 acres. The amount paid to the settlers up to the 31st March, 1902, was £71,017, and the total value of improvements on the land (including the Government advances) was £100,096.

The size of holdings averages about 100 acres.

THE LAND FOR SETTLEMENTS ACTS.

In the earlier years of the settlement of New Zealand there were opportunities for men of capital and judgment to acquire large estates, and while there were plenty of good Crown lands to select from this was of great advantage to the colony when money was needed for administration and roads and bridges. These large estates employed hired labour, and most of them did little towards cultivating their lands, and consequently progress beyond the pastoral stage ceased in the districts in which they were situated. As the best lands in the course of years passed from the Crown, the country became a series of agricultural communities interspersed with large properties occupied by a manager and a few shepherds, and the people pressed that they and their sons should be allowed to occupy these large estates instead of being compelled to go into inaccessible back country without roads or railways. To meet this the Hon. (later Sir) John McKenzie, then Minister of Lands, introduced into the Legislature in the session of 1892 a Bill intituled "The Land for Settlements Act," which authorised the purchase from private individuals of suitable properties for subdivision into farms. Under the provisions of this Act and the amending Acts, which are now consolidated into the Act of 1900, properties have been acquired, and divided into small farms and leased in perpetuity at a 5-per-cent. rental, on a capital value fixed at a rate sufficient to cover first cost, together with survey, administration, and roads (if required). The usual process of acquisition is as follows: Whenever a property is offered to the Government, if it is so situated as to meet the object of the Act, a report on it is obtained from a Government officer, and, should his report be favourable, the question of purchase is then considered by a Board of Land Purchase Commissioners, composed of the Inspector, who is the permanent Chairman, three other Government officers, whose training and duties qualify them to advise the Government as to whether the purchase is a suitable one, and as to the price which should be given for the property, and a member nominated by the Government from residents in the

district where the land to be dealt with is situated. It is only on the advice of this Board that the Government acts. In nearly all cases the properties acquired have been improved to a certain extent by fencing and buildings, and were situated in the neighbourhood of closely settled districts. The amount which may be expended per annum under the Act is £500,000. The Act also provides for the exchange of high-lying pastoral Crown lands for low-lying agricultural lands suitable for small holdings.

Lands may also be taken compulsorily in cases where the Board cannot agree with the owner as to price, &c., and where the Governor in Council decides to acquire the land for closer settlement. The amount payable to the owner is decided by a Compensation Court, composed of a Judge of the Supreme Court and two Assessors, one appointed by Government, the other by the owner of the property. Four properties have hitherto been acquired compulsorily, and they have been disposed of on satisfactory terms.

The acquisition of lands under the Land for Settlements Acts has proved beneficial in providing homes for a large class of men of moderate capital who shrink from the rough work of breaking in new country or who, having accumulated capital (cash, stock, and implements), prefer open country near civilisation. Sons of farmers begin life near the old home, and help from there is given in many ways. The system also affords to the small-farmer class of the Old Country an opening for building up homes for themselves where their previous experience will be of use, instead of having to learn the methods adapted to a new and wild country.

Preference is given to landless people, and applicants for rural land have to satisfy the Land Board as to their means to stock and cultivate the property applied for and erect suitable buildings thereon. The Board, in fact, has a discretion as to who may become tenants.

Land may also be compulsorily taken for workmen's homes within a borough having a population of at least 15,000 persons, or within a radius of fifteen miles from the border thereof, for the purposes of providing workmen's homes or villages; but the area is restricted to not more than 100 acres every year within any such borough, or within the radius named above from the boundary of the borough.

The owner is left with right to retain an area of not more than 10 acres if in a borough, or 50 acres in any other case.

A workmen's allotment is not to exceed 5 acres, and advances up to £50 are made by Government to successful applicants in aid of the cost of fencing and building dwellinghouses.

Regulations giving full directions to applicants under this Act have been issued from time to time, which should be in the hands of every one before applying for lands under this Act.

An account of the operations under the Land for Settlements Acts will be found in Part II. of this work.

Purchase of Native Lands by Government.

From about the year 1823 (which is the date of the first recorded deed) until the 6th February, 1840, the date of the Treaty of Waitangi, lands in New Zealand were acquired by direct purchase from the Maoris by individual members of the white races. During the years 1837 to 1839, or about the time it became probable that the sovereignty of the islands would be assumed by the United Kingdom, the greater number of these purchases were made, and they extended to most parts of the country. These purchases are technically known as "the Old Land Claims," and their total number (including pre-emptive claims), as estimated by Commissioner F. Dillon Bell in 1862, was 1,376, covering an area of about 10,322,453 acres, out of which large area grants were recommended for 292,475 acres. These figures have been slightly added to since, but not to any very large extent. The large area shown above was reduced on survey to about 474,000 acres, situated principally to the north of Auckland. The difference in area between the amount granted and the total area surveyed became what are termed "surplus lands of the Crown." It was held that the Native title had been fully extinguished over the whole area surveyed; but, as by statute the claimants could only be granted 2,560 acres each, the balance became vested in the Crown on the assumption of the sovereignty, the Native title having been fully extinguished.

In many cases the titles did not issue to those to whom the land was awarded, as they were compensated by scrip issued by the Government, with the understanding that such scrip was to be exercised in the purchase of Crown lands in the neighbourhood of Auckland, to which place it was desirable—so soon as the capital was founded—to draw a population. The lands thus paid for in scrip became Crown lands, and these, together with the surplus lands, have from time to time been disposed of by the Crown and settled on. The amount of scrip, &c., issued up to 1862 was over £109,000.

On the signing of the Treaty of Waitangi on the 6th February, 1840, the pre-emptive right was ceded to the Government, and consequently private purchase ceased. This remained the law until the passing of "The Native Land Act, 1862," when the Crown relinquished its right of pre-emption, whilst at the same time the purchase of Native lands for the Crown did not abate, but continued side by side with the private purchases up to the passing of "The Native Land Court Act, 1894."

"The Native Land Laws Act, 1899," prohibits the further sale of any Native land except such as was then under negotiation. "The Maori Councils Act, 1900," and the Maori Lands Administration Act of 1900 transfers the powers formerly held by the Native Land Court to Maori Councils partly elected by Maoris and partly nominated by the Governor, and when so directed by the Chief Judge these Councils may proceed to ascertain ownership, to

divide, and to appoint successors and trustees. They may also consent to the alienation of land not required for the support of the owners.

From time to time since 1840 various sums were appropriated by Government or by Parliament for the acquisition of a Crown estate. Up to the date of passing of "The Native Land Act, 1862," these operations were conducted by officers of the Government specially appointed, who, from a knowledge of the Maoris, their customs and disposition, were successful in securing large areas of land for settlement. It must be conceded that their operations as a whole were successful, and that the number of disputed cases arising out of their labours was exceedingly small. The Waitara purchase is, however, here excluded, for there were reasons of general policy affecting that sale which did not prevail in other cases. This purchase was the ostensible cause of the war of 1860 and following years, but the motives which led to it were far deeper than the mere purchase of a few acres—there was a great principle at stake.

The difference effected in the mode of purchase by "The Native Land Act, 1862," was this: Previously, the title of the Maoris who were to receive payment for the land was decided by the Land Purchase officers; but the Act quoted set up a Court, presided over by able Judges, who determined the titles, which were afterwards registered in a special Court. Purchases have since been effected with the registered owners.

It is difficult to obtain figures showing the actual area acquired by the Crown from the Maoris up to 1870, but in round numbers it was 6,000,000 acres in the North Island; whilst the whole of the Middle Island, with the exception of reserves for the original Native owners, was acquired prior to the passing of "The Native Land Act, 1862." Stewart Island was purchased from the Native owners by deed dated 29th June, 1864.

The Native rebellion of 1860–69 brought Native-land purchases, for the time being, practically to a standstill.

The Immigration and Public Works Acts of 1870 and 1873 appropriated £200,000 and £500,000, respectively, for the purchase of lands in the North Island; and these amounts have, up to the 31st of March, 1902, been augmented by further annual appropriations from the public funds and other loan-moneys, covering altogether a total expenditure since 1870 of £1,984,230, with the following results: Area finally acquired in the North Island from Natives, from 1870 to 31st March, 1902, 7,874,541 acres. Area under negotiation in the North Island on 31st March, 1902, 213,458 acres; interests therein finally acquired, 19,533 acres.

Digest of the Land-Laws.

Administration.

The Crown lands are administered, under the authority of "The Land Act, 1892," by the Hon. the Minister of Lands at Wellington.

For convenience the colony is divided into ten land districts, each being under the local direction of a Commissioner and a Land Board. The Commissioner's office is known as the principal land office, and in some of the larger districts there are one or more local land offices. It is with these land offices the selector has to transact all business, from the first consultation of the maps to the final receipt of the Crown title.

Land Districts and Principal Land Offices.

The names of the land districts and of the towns where each principal office is situated are, beginning with the most northerly and taking them geographically, as under:—

Land District.	Town where Principal Land Office is situated.	Land District.	Town where Principal Land Office is situated.
Auckland	Auckland.	Marlborough	Blenheim.
Taranaki	New Plymouth.	Westland	Hokitika.
Hawke's Bay	Napier.	Canterbury	Christchurch.
Wellington	Wellington.	Otago	Dunedin.
Nelson	Nelson.	Southland	Invercargill.

Classification of Lands, &c.

Crown lands are divided into three classes:—

(1.) Town and village lands, the upset prices of which are, respectively, not less than £20 and £3 per acre; such lands are sold by auction:

(2.) Suburban lands, the upset price of which may not be less than £2 an acre; these lands are also sold by auction:

(3.) Rural lands, which may be disposed of at not less than £1 per acre for first-class, and 5s. an acre for second-class lands; such lands may be sold or leased by auction, or sold or leased on application.

No rural section may be larger than 640 acres in extent if first-class land, or 2,000 acres if second-class land, whether offered by auction or application. No person can select more than 640 acres of first-class or 2,000 acres of second-class land, including therein any land which he then holds. Small grazing-runs, first-class, may not exceed 5,000 acres, and second-class 20,000 acres. Pastoral runs are limited to areas which will carry 20,000 sheep or 4,000 cattle. No person can select more than one run.

Mode of acquiring Crown Lands.

Crown lands may be acquired as follows:—

(1.) By auction, after survey, in which case one-fifth of the price is paid down at the time of sale, the balance within thirty days:

(2.) By application, after the lands have been notified as open for selection, in which case the applicant fills up a form (to be obtained at any of the Land Offices) and makes the declaration and undertaking required by the particular system he wishes to select under.

All applications, whether for surveyed or unsurveyed lands, are deemed to be simultaneous if made on the same day, and, if there be more than one applicant for the same land, the right of selection is determined by ballot.

Lands thrown open for application may be either surveyed or unsurveyed, and those not selected the first day remain open.

The Optional System of Selection.

Lands for selection are notified as open for application on and after a stated day, and, *at the option of the applicant*, may be obtained on any of the three following tenures: (*a*) Freehold; (*b*) Occupation with the right of purchase; (*c*) Lease in perpetuity.

(*a.*) *Freehold.*

If the land is surveyed, one-fifth of the price is to be paid down when the application is granted, and the balance within thirty days; or, if the land is not completely surveyed, the survey-fee is deposited when the application is agreed to, and goes towards the purchase of the land; the balance must be paid within thirty days of notice that the survey is completed.

A certificate of occupation will issue to the purchaser on final payment, which will be exchanged for a Crown title so soon as the Board is satisfied that the improvements mentioned on the next page have been completed.

(*b.*) *Occupation with Right of Purchase.*

Lands selected on this tenure are held under a license for twenty-five years. At any time subsequent to the first ten years, and before the expiration of the license, after having resided and made the improvements hereinafter described, the licensee can, on payment of the upset price of the land, acquire the freehold. If the land be not purchased, the license may be exchanged for a lease in perpetuity.

The rent is 5 per cent. on the cash price of the land; a half-year's rent has to be paid at the time the application is approved, if surveyed land, which represents the half-year's rent due in advance on the 1st day of January or July following the selection. If the land is unsurveyed, the cost of survey is to be paid, and is credited to the selector as so much rent paid in advance, counted from the 1st day of January or July following thirty days' notice of the completion of survey.

Residence and improvement of the land are compulsory, as hereinafter described.

(*c.*) *Leases in Perpetuity.*

Lands selected on this tenure are leased for 999 years, subject to the conditions of residence and improvements described below. The rental is 4 per cent. on the cash price of the land, and applications are dealt with in the same way as under the previous tenure (*b*), but there is at no time a right to purchase the freehold.

Two or more persons may make a joint application to hold as tenants in common under either of the two last-named tenures.

Residence and Improvements.

Under the two last-mentioned tenures, the conditions as to residence and improvements are:—

RESIDENCE—

(1.) Must commence on bush or swamp lands within four years, and in open or partly open land within one year, from the date of selection:

(2.) Must be continuous for six years on bush or swamp land, and for seven years on open or partly open land, on lands occupied with a right of purchase:

(3.) Must be continuous for a term of ten years on lease-in-perpetuity lands.

The Board has power to dispense with residence in certain cases, such as where the selector is residing on adjacent lands, or is a youth or unmarried woman living with parents, and in a few other cases.

RESIDENCE implies the erection of a habitable house to be approved of by the Board.

IMPROVEMENTS which must be made are as follows:—

(1.) Freehold-tenure lands must be improved within seven years to an amount of £1 an acre for first-class land, and 10s. an acre for second-class land.

(2.) Lands held on lease with right of purchase, or on lease in perpetuity, must be improved to an amount equal to 10 per cent. of the value of the land within one year from the date of the license or lease; within two years must be improved to the amount of another 10 per cent.; within six years must be improved to the value of another 10 per cent., making 30 per cent. in all within the six years. In addition to the above, the land must be further improved to an amount of £1 an acre for first-class land, and on second-class land to an amount equal to the net price of the land, but not more than 10s. an acre.

Improvements may consist of reclamation from swamps, clearing of bush, planting with trees or hedges, cultivation of gardens, fencing, draining, making roads, wells, water-tanks, water-races, sheep-dips, embankments or protective works, or in any way improving the character or fertility of the soil; or the erection of any building, &c.; and *cultivation* includes the clearing of land for cropping, or clearing and ploughing for laying down with artificial grasses, &c.

Special-settlement Associations.

Under the existing regulations any number of persons, not less than twelve, may select and apply for a block of land of not less

than 1,000 acres or more than 11,000 acres in extent, but the number of members must be such that there shall be one for every 200 acres in the block, and no one can hold more than 320 acres, except in swamp lands, where the area may be 500 acres.

The capital value of lands within a special settlement is fixed after survey by special valuation, but may not be less than 10s. an acre; the rental is not less than 4 per cent. on the capital value, and the tenure is a lease in perpetuity.

Residence, occupation, and improvements are generally the same as already described, and applications have to be made in manner prescribed by regulations.

Applicants should apply to a Commissioner for a copy of the regulations, as they are liable to change at any time.

Suitable land for small settlement of this kind is now scarce.

"

Improved-farm Settlements.

Special regulations are in force for this class of settlement, which should be applied for, but briefly the terms are as follow: Applicants are selected by the Commissioner of Crown Lands, preference being given to married men. The areas of the farms may vary from 10 acres to 200 acres, according to locality; no settler can select more than one farm. Contracts are made with the settler to fell the forest, burn it, and sow with grass-seed up to 100 acres, the cost being paid by the Government, and £10 may be advanced to a single man and £30 to a married man to help to build a house. The rates allowed for felling are those current in the district. The land is then leased for 999 years at a rental of 4 per cent. on the unimproved capital value, *plus* the actual cost of the felling and grassing. As a rule, the settlers can get employment on the road-works in the neighbourhood, but Government does not guarantee this.

Residence for the first ten years is compulsory, and improvements must be made in terms of Part III. of "The Land Act, 1892." (See *ante*.)

Village Settlements.

Village settlements are disposed of under regulations made from time to time by the Governor, but the main features are as follow:—

Such settlements may be divided into:—

(1.) Village allotments not exceeding one acre each, which are disposed of either by auction among the applicants or by application, as already described, with option of tenure, the cash price being not less than £3 per allotment:

(2.) Homestead allotments not exceeding 100 acres each, which are leased in perpetuity at a 4-per-cent. rental on a capital value of not less than 10s. per acre.

Residence, improvements, and applications are the same as already described. The leases are exempt from liability to be seized or sold for debt or bankruptcy.

The Colonial Treasurer is empowered in certain cases to advance small sums for the purpose of enabling selectors to profitably occupy their allotments.

Small Grazing-runs.

Small grazing-runs are divided into two classes: First-class, not exceeding 5,000 acres; second-class, not exceeding 20,000 acres in area. The rental in both cases is not less than 2½ per cent. on the capital value per acre, but such capital value cannot be less than 5s. per acre. Small grazing-runs are leased for terms of twenty-one years, with right of renewal for other twenty-one years, at a rent of 2½ per cent. on the then value of the land. The runs are declared open for selection, and applications and declarations on the forms provided have to be filled in and left at the Land Office, together with the deposit of one half-year's rent, which represents that due on the 1st day of March or September following the selection.

No holder of a pastoral run, and no holder of freehold or leasehold land of any kind whatever, over 1,000 acres in area, exclusive of the small grazing-run applied for, may be a selector under this system; and only one small grazing-run can be held by any one person.

The lease entitles the holder to the grazing rights, and to the cultivation of any part of the run, and to the reservation of 150 acres round his homestead through which no road may be taken; but the runs are subject to the mining laws.

Residence is compulsory, if bush or swamp land, within three years; if open, within one year; and must be continuous to the end of the term, but may in a few cases be relaxed. Improvements necessary are as follow: Within the first year, to the amount of one year's rent; within the second year, to another year's rent; and, within six years, to the value of two other years' rent: making in all a sum equal to four years' rental, which must be expended within six years. In addition to these improvements, bush-covered first-class runs must be improved to an amount of 10s. an acre, and second-class bush-clad runs to an amount of 5s. an acre.

These runs may be divided, after three years' compliance with the conditions, amongst the members of the selector's family.

Pastoral Runs.

Pastoral country is let by auction for varying terms not exceeding twenty-one years; and, excepting in extraordinary circumstances, runs must not be of a greater extent than will carry 20,000 sheep or 4,000 head of cattle. Runs are classified from time to time by special Commissioners into: (1) Pastoral lands, which are suitable only for depasturing more than 5,000 sheep; (2) pastoral-

agricultural lands, suitable for subdivision into areas of under 5,000 acres, which may be either let as pastoral runs, generally for short terms, or cut up for settlement in some other form. Leases of pastoral lands may not be resumed; leases of pastoral-agricultural lands may be resumed at any time after twelve months' notice, without compensation.

No one can hold more than one run; but, in case of any one holding a run of a carrying-capacity less than 10,000 sheep, he may take up additional country up to that limit.

Runs are offered at auction from time to time, and half a year's rent has to be paid down at the time of sale, being the amount due in advance on the 1st day of March or September following the sale, and the purchaser has to make the declaration required by the Act. All leases begin on the 1st day of March, and they entitle the holder to the grazing rights, but not to the soil, timber, or minerals; and the lease terminates over any part of the run which may be leased for some other purpose, purchased, or reserved. The tenant has to prevent the burning of timber or bush; in open country to prevent the growth of gorse, broom, or sweetbriar; and to destroy the rabbits on his run. With the consent of the Land Board, the interest in a run may be transferred or mortgaged, but power of sale under a mortgage must be exercised within two years.

In case it is determined again to lease any run on expiry of the lease, the new lease must be offered by auction twelve months before the end of the term, and if, on leasing, it shall be purchased by some one other than the previous lessee, valuation for improvements, to be made by an appraiser, shall be paid by the incoming tenant, but to a value not greater than three times the annual rent—excepting in the case of a rabbit-proof fence, which is to be valued separately. If the run is not again leased, the value of rabbit-proof fencing is paid by the Crown, but the tenant has no claim against the Crown beyond the value of the rabbit-proof fence; he may, however, within three months of sale, remove fences, buildings, &c. Runs may also be divided with the approval of the Board.

Survey Charges on Unsurveyed Lands.

The following is the scale of charges for surveys of unsurveyed lands:—

Not exceeding 30 acres, £6.

Exceeding 30 and up to 50 acres, 3s. 6d. per acre, but not less than £6.

Exceeding 50 and up to 100 acres, 3s. per acre, but not less than £8 15s.

Exceeding 100 and up to 200 acres, 2s. 6d. per acre, but not less than £15.

Exceeding 200 and up to 300 acres, 2s. per acre, but not less than £25.

Exceeding 300 and up to 500 acres, 1s. 8d. per acre, but not less than £30.

Exceeding 500 and up to 1,000 acres, 1s. 4d. per acre, but not less than £41 10s.

Exceeding 1,000 and up to 2,000 acres, 1s. per acre, but not less than £66 10s.

For the survey of any area of rural land, being open land, the scale of charges shall be two-thirds the foregoing rates.

The Chief Surveyor may vary the above charges by substituting a rate per mile or per day for such work as may not come under the foregoing scale.

ADVANCES TO SETTLERS.

THE Government Advances to Settlers Act was a Government policy measure in the legislation of 1894. It was designed to afford relief to a numerous class of colonists who were struggling under the burden of high rates of interest and heavy legal expenses of mortgages. These were established when prices of agricultural produce were high and profits large; and, so long as business continued to be prosperous, they attracted but little, if any, attention. For several years preceding 1894 commerce and agriculture had suffered from world-wide depression; settlers were becoming embarrassed in their circumstances; and the high rates of interest still charged were felt to be a burden on the industry of the people not easily borne, and a hindrance to the settlement and development of the farming lands of the colony. Under these circumstances the Government brought in the Government Advances to Settlers Act. It was passed towards the close of the session of 1894, and immediately came into operation, with results which have proved beneficial to the farming community. A general decline in the rates of interest at once set in, and it is not too much to claim that the Act has been instrumental in lowering these to a considerable extent on several millions of money invested on mortgage of the farming lands of the colony. This result, while it may have diminished the incomes of a few persons resident within the colony, has benefited thousands of deserving settlers and led to large areas of land being brought under cultivation that, but for the Advances to Settlers Act, would still be in their natural state.

The Act authorised the raising of three million pounds sterling within two years, in sums of a million and a half per annum, at a rate of interest not higher than 4 per cent. In May, 1895, tenders were invited in London for £1,500,000 of 3-per-cent. inscribed stock of the Government of New Zealand, and applications were received for £5,960,400 at prices ranging from £100 to £90. The million and a half was placed at an average price of £94 8s. 9d.

An amending Act, passed in 1895, extended the time for raising the residue of the three millions to three years from the coming into

operation of the amending Act. In 1898 this term was extended for a further period of three years, and in 1901 the time-limit restriction was removed altogether, power being given at the same time to raise an additional loan of £1,000,000.

To carry out the objects of the Act, an office was established called the "Government Advances to Settlers Office"; at the same time a General Board was constituted to co-operate with and assist the Superintendent, the title by which the chief administrative officer is known.

The business of the office is the advancing of money in New Zealand on first mortgage of lands and improvements held under any of the following classes of tenure, free from all encumbrances, liens, and interests other than leasehold interests, that is to say:—

(1.) Freehold land held in fee-simple under "The Land Transfer Act, 1885," or freehold land held in fee-simple the title to which is registered under "The Deeds Registration Act, 1868."

(2.) Crown land held on perpetual lease under "The Land Act, 1885."

(3.) Crown land held under Parts III. and IV. of "The Land Act, 1892."

(4.) Crown land held on lease as a small grazing-run under "The Land Act, 1885," or under "The Land Act, 1892."

(5.) Crown land held on agricultural lease under "The Mining Act, 1891."

(6.) Crown land held on lease (not being for mining purposes) under "The Westland and Nelson Coalfields Administration Act, 1877."

(7.) Native land held on lease under "The West Coast Settlement Reserves Act, 1881," or under the Act of 1892.

(8.) Land held on lease under "The Westland and Nelson Native Reserves Act, 1887."

(9.) Land held under "The Thermal-Springs Districts Act, 1881."

(10.) Educational and other reserves which are subject to the provisions of "The Land Act 1877 Amendment Act, 1882," by virtue of Proclamation made under section 50 thereof, or "The Land Act, 1885," by virtue of Proclamation made under section 237 thereof, or "The Land Act, 1892," by virtue of Proclamation made under section 243 thereof, and are held on perpetual lease or lease in perpetuity, or on deferred-payment or small grazing-run systems.

(11.) Crown land held by license on the deferred-payment system under Part III. of "The Land Act, 1885."

(12.) Land held under lease from a leasing authority, as defined by "The Public Bodies' Powers Act, 1887," and providing for the payment by the incoming tenant of valua-

tion for improvements made upon the land, whether by the lessee named in such lease or any former lessee, as tenant.

With regard to classes 10 and 12, a lease is not eligible if it provides for absolute forfeiture (without compensation) for breach of conditions, or if on the determination of the lease compensation is to be allowed for certain improvements only.

Mortgages are granted either on the instalment or the fixed-loan system (fully described hereafter); and the margins of security required by the Act are as follow:—

(1.) On freeholds (other than urban or suburban) three-fifths of the value may be advanced either on the instalment or fixed-loan system: Provided that in the case of first-class agricultural freeholds instalment loans may be advanced up to two-thirds of the value.

(2.) On leaseholds (other than urban or suburban) one-half of the value of the lessee's interest in the lease may be advanced on the instalment system. No loans are granted on leaseholds on the fixed-loan system.

(3.) On urban and suburban freeholds, loans are granted on the instalment system only, and the amounts of loan are limited as follow:—

(*a.*) On urban freehold on which buildings exist, three-fifths of the value of the land, *plus* one-half the value of the buildings, may be advanced;

(*b.*) On suburban freehold on which buildings exist, one-half the value of the land, *plus* one-half the value of the buildings, may be advanced:

(*c.*) On urban or suburban freehold on which no buildings exist, one-half the value of the land may be advanced, but on such security no loan shall be granted except for the erection of buildings on the land: the loan to be advanced by instalments at the discretion of the Board, as the erection of the buildings proceeds.

"Urban land" means land which is situate in a borough having a population of at least two thousand inhabitants and is not used for farming, dairying, or market-gardening purposes.

"Suburban land" means land which is situate in a borough having a population of less than two thousand inhabitants, or in any town, or in the vicinity of any town or borough, and is not used for farming, dairying, or market-gardening purposes.

Lands situated within towns, and are used for farming, dairying, or market-gardening, are treated in accordance with paragraphs (1) and (2) above.

The right of determining what land may be considered "urban" or "suburban," or "first-class agricultural," is imposed by the Act on the General Lending Board.

The security which the applicant offers for the loan must consist of one or more holdings of the several classes of tenure above men-

tioned, and must, of course, be of the necessary value; and, if the security is leasehold, all the covenants and conditions of the lease, including the payment of rent, must have been regularly complied with.

Any person desiring an advance is required to make a written application on the prescribed form, a copy of which can be obtained from any Postmaster in the colony. The Postmaster also supplies an envelope in which the application may be forwarded free of postage, and affords to the applicant any explanation which may be required respecting the filling-in of the application.

In the case of an application for an advance on the security of an interest in land held under a lease or license issued from the Lands Department (and belonging to one or more of the classes of tenure numbered 2, 3, 4, 5, 6, 9, 10, 11), a notice of the application must be forwarded to the Commissioner of Crown Lands for the district in which the land is situated, on a form which, with an envelope for forwarding it free of postage, may be obtained from any Postmaster in the colony.

No loan of less than £25 or more than £3,000 can be granted, and in the case of "urban" or "suburban" lands the maximum loan is fixed at £2,000.

All applications must be accompanied by a valuation-fee according to the following scale :—

	£	s.	d.
On an application for a loan not exceeding £100	0	10	6
Exceeding £100 but not exceeding £250 ...	1	1	0
Exceeding £250 but not exceeding £500 ...	1	11	6
Exceeding £500 but not exceeding £3,000 ...	2	2	0

If the applicant has already obtained any advance under the Act and is desirous of obtaining a further advance, either on the same security or on a separate security, the amount of the application, added to the amount of the advances already obtained, must not exceed the limit mentioned above—£3,000 for farming and £2,000 for urban or suburban lands.

Mortgages granted on the fixed-loan system may be for any period not exceeding ten years, and the principal is repayable at the end of the term. They may also be repaid in whole or in part on any half-yearly due date during the term, as explained hereafter. Interest at the rate of 5 per cent. is payable half-yearly, reducible to 4½ per cent. provided payment is made not later than fourteen days after due date and there are no arrears.

Mortgages granted on the instalment system are repayable by seventy-three half-yearly payments of principal and interest combined. They may also be repaid in whole or in part at any time. Interest is charged at the rate of 5 per cent., reducible to 4½ per cent. provided payment is made not later than fourteen days after due date and there are no arrears.

Every half-yearly instalment, except the last, is at the rate of £3 (less the rebate of interest in case of prompt payment) for every £100

of the loan. The following table shows, taking a loan of £100 as an instance, how much of each instalment is applied to repaying the principal, and how much is in payment of interest. It shows also the balance of principal remaining due after payment of the respective instalments until the loan is entirely repaid in thirty-six years and a half:—

TABLE OF PRESCRIBED HALF-YEARLY INSTALMENTS FOR EVERY ONE HUNDRED POUNDS OF THE LOAN.

Half-year.	Prescribed Half-yearly Instalment.	Apportioned thus:		Balance of Principal owing.
		On Account of Interest at 5 per Cent.	On Account of Principal.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st	3 0 0	2 10 0	0 10 0	99 10 0
2nd	3 0 0	2 9 9	0 10 3	98 19 9
3rd	3 0 0	2 9 6	0 10 6	98 9 3
4th	3 0 0	2 9 3	0 10 9	97 18 6
5th	3 0 0	2 9 0	0 11 0	97 7 6
6th	3 0 0	2 8 8	0 11 4	96 16 2
7th	3 0 0	2 8 5	0 11 7	96 4 7
8th	3 0 0	2 8 1	0 11 11	95 12 8
9th	3 0 0	2 7 10	0 12 2	95 0 6
10th	3 0 0	2 7 6	0 12 6	94 8 0
11th	3 0 0	2 7 2	0 12 10	93 15 2
12th	3 0 0	2 6 11	0 13 1	93 2 1
13th	3 0 0	2 6 7	0 13 5	92 8 8
14th	3 0 0	2 6 3	0 13 9	91 14 11
15th	3 0 0	2 5 10	0 14 2	91 0 9
16th	3 0 0	2 5 6	0 14 6	90 6 3
17th	3 0 0	2 5 2	0 14 10	89 11 5
18th	3 0 0	2 4 9	0 15 3	88 16 2
19th	3 0 0	2 4 5	0 15 7	88 0 7
20th	3 0 0	2 4 0	0 16 0	87 4 7
21st	3 0 0	2 3 7	0 16 5	86 8 2
22nd	3 0 0	2 3 2	0 16 10	85 11 4
23rd	3 0 0	2 2 9	0 17 3	84 14 1
24th	3 0 0	2 2 4	0 17 8	83 16 5
25th	3 0 0	2 1 11	0 18 1	82 18 4
26th	3 0 0	2 1 6	0 18 6	81 19 10
27th	3 0 0	2 1 0	0 19 0	81 0 10
28th	3 0 0	2 0 6	0 19 6	80 1 4
29th	3 0 0	2 0 0	1 0 0	79 1 4
30th	3 0 0	1 19 6	1 0 6	78 0 10
31st	3 0 0	1 19 0	1 1 0	76 19 10
32nd	3 0 0	1 18 6	1 1 6	75 18 4
33rd	3 0 0	1 18 0	1 2 0	74 16 4
34th	3 0 0	1 17 5	1 2 7	73 13 9
35th	3 0 0	1 16 10	1 3 2	72 10 7
36th	3 0 0	1 16 3	1 3 9	71 6 10
37th	3 0 0	1 15 8	1 4 4	70 2 6
38th	3 0 0	1 15 1	1 4 11	68 17 7
39th	3 0 0	1 14 5	1 5 7	67 12 0
40th	3 0 0	1 13 10	1 6 2	66 5 10
41st	3 0 0	1 13 2	1 6 10	64 19 0

TABLE OF PRESCRIBED HALF-YEARLY INSTALMENTS FOR EVERY ONE HUNDRED POUNDS OF THE LOAN—*continued.*

Half-year.	Prescribed Half-yearly Instalment.	Apportioned thus:		Balance of Principal owing.
		On Account of Interest at 5 per Cent.	On Account of Principal.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
42nd	3 0 0	1 12 6	1 7 6	63 11 6
43rd	3 0 0	1 11 9	1 8 3	62 3 3
44th	3 0 0	1 11 1	1 8 11	60 14 4
45th	3 0 0	1 10 4	1 9 8	59 4 8
46th	3 0 0	1 9 7	1 10 5	57 14 3
47th	3 0 0	1 8 10	1 11 2	56 3 1
48th	3 0 0	1 8 1	1 11 11	54 11 2
49th	3 0 0	1 7 3	1 12 9	52 18 5
50th	3 0 0	1 6 6	1 13 6	51 4 11
51st	3 0 0	1 5 8	1 14 4	49 10 7
52nd	3 0 0	1 4 9	1 15 3	47 15 4
53rd	3 0 0	1 3 11	1 16 1	45 19 3
54th	3 0 0	1 3 0	1 17 0	44 2 3
55th	3 0 0	1 2 1	1 17 11	42 4 4
56th	3 0 0	1 1 1	1 18 11	40 5 5
57th	3 0 0	1 0 2	1 19 10	38 5 7
58th	3 0 0	0 19 2	2 0 10	36 4 9
59th	3 0 0	0 18 1	2 1 11	34 2 10
60th	3 0 0	0 17 1	2 2 11	31 19 11
61st	3 0 0	0 16 0	2 4 0	29 15 11
62nd	3 0 0	0 14 11	2 5 1	27 10 10
63rd	3 0 0	0 13 9	2 6 3	25 4 7
64th	3 0 0	0 12 7	2 7 5	22 17 2
65th	3 0 0	0 11 5	2 8 7	20 8 7
66th	3 0 0	0 10 3	2 9 9	17 18 10
67th	3 0 0	0 9 0	2 11 0	15 7 10
68th	3 0 0	0 7 8	2 12 4	12 15 6
69th	3 0 0	0 6 5	2 13 7	10 1 11
70th	3 0 0	0 5 1	2 14 11	7 7 0
71st	3 0 0	0 3 8	2 16 4	4 10 8
72nd	3 0 0	0 2 4	2 17 8	1 13 0
73rd	1 13 10	0 0 10	1 13 0	..

With reference to the above table, it has to be borne in mind that the amount of each instalment (£3) is reduced by one-tenth of the amount set down for interest if payment is made within the prescribed time. Thus, a mortgagor paying promptly his first instalment on a loan of £100 would be charged not £3, but £2 15s., the interest being reduced by one-tenth.

The mortgagor under the instalment system may pay to the Superintendent at any time, and under the fixed-loan system on any half-yearly due date, the whole balance of principal owing, with interest to date of payment, and obtain a discharge of the mortgage on payment of the fee prescribed for such discharge.

The mortgagor may also from time to time pay to the Superintendent, in addition to the half-yearly payments, sums of £5 or a

multiple of £5, and in the case of fixed loans such deposits are applied in reduction of the advance, and interest is charged on the balance only; or, if the mortgagor so directs, such deposits are held on his behalf and applied in payment of the half-yearly instalments of interest as they fall due.

In the case of an instalment loan, money paid in advance by a mortgagor is applied in one of the following methods, according as he directs:—

(*a.*) It may be held on his behalf and applied in payment of the half-yearly instalments (consisting partly of interest and partly of principal) as they fall due, until the deposit is exhausted.

(*b.*) It may be applied at once in payment of as many future half-yearly instalments of principal (but not of interest) as it will cover, and, as far as such instalments are concerned, the corresponding interest will not be charged. On the next half-yearly date, however, the mortgagor will be required to continue his payments as before, the advance payment having the effect of reducing the period (thirty-six years and a half) during which he would have to pay such instalments. For instance, a mortgagor has a loan of £100: On the due date of his eighth half-yearly instalment he pays, in addition to the amount due, a sum of £5. This is applied in payment of his ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth instalments of principal—12s. 2d., 12s. 6d., 12s. 10d., 13s. 1d., 13s. 5d., 13s. 9d., 14s. 2d. (see table), making a total of £4 11s. 11d.—and the corresponding interest, £2 7s. 10d., £2 7s. 6d., £2 7s. 2d., £2 6s. 11d., £2 6s. 7d., £2 6s. 3d., £2 5s. 10d., is not charged. A balance of 8s. 1d. remains in his favour. Then on the next due date he has to make the half-yearly payment as usual (less 8s. 1d.), but, instead of being the ninth, it counts as the sixteenth instalment, and by this means the whole loan is repaid three years and a half earlier (seven half-yearly payments) than it otherwise would.

(*c*). It may be applied as explained in the next paragraph.

On the due date of any instalment, after at least one-tenth of the loan has been repaid, by means of the half-yearly instalments or of moneys repaid in advance, or both, the mortgagor (provided he is not in arrear with any instalment or other payment due under the mortgage) may, with the consent of the Superintendent, readjust the loan by treating the balance of principal then unpaid as a fresh loan duly granted on that date for a fresh term. But no readjustment is allowed unless the balance of unpaid principal amounts to at least £100. Under this arrangement the mortgagor is relieved of paying interest calculated on the original amount of the loan. He only pays interest on the balance of principal not repaid.

Advance payments in reduction of the mortgage, unless made on the due date of a half-yearly payment, take effect only from the next due date.

The law-costs payable for preparing and completing the mortgages under the Act are as follow:—

Mortgages under "The Land Transfer Act, 1885."

Law-costs of perusing title, preparing and registering mortgage (to be deducted from the advance),—	£	s.	d.
If advance be not exceeding £500	0	10	6
Exceeding £500, but not exceeding £1,000	1	1	0
Exceeding £1,000, but not exceeding £3,000 ..	1	11	6

With cash disbursements, which are the same in every case, namely,—

Mortgage-forms	2s.	
Search-fee	2s.	With an additional 2s. for every certificate of title after the first.
Registration	10s.	

"

Mortgages under "The Deeds Registration Act, 1868."

Law-costs of perusing title, preparing and registering mortgage, including disbursements (to be deducted from the advance),—	£	s.	d.
If advance be not exceeding £500	2	10	0
For every additional £500	0	15	0
Fee chargeable by solicitor not residing in registration centre for employing agent to register mortgage	0	5	0
Solicitor's charge for obtaining Land Board's consent to mortgage of leasehold land	0	5	0
Fee for execution of consent by the Superintendent to any document	0	10	0
Fee for production of title-deeds held by the Superintendent	0	10	0
Fee for partial or total discharge of mortgage ..	0	5	0

Solicitors are entitled to charge moderately for any services mortgagors may require over and above those provided for in the scale—such services, for example, as clearing encumbered titles, obtaining and registering titles, &c.

Valuation reports on the securities offered are made on behalf of the Department by expert land-valuers; and these reports, together with the corresponding valuations appearing in the district valuation-rolls, prepared in accordance with the provisions of "The Government Valuation of Land Act, 1896," and reports from the Commissioners of Crown Lands in the case of Crown leaseholds, are considered by the General Board. Board meetings are held weekly, or as occasion requires, and the Superintendent is bound by the resolutions of the Board. A resolution is taken with regard to every application placed before the General Board, so that on the Board rests the responsibility of granting loans or of refusing to grant them.

Some applicants offer securities which are obviously not eligible; and in that event the valuation-fees paid are returned, the securities are not reported on, and the applications do not go before the Board.

By arrangements made with the Post Office, mortgagors are enabled to pay their instalments and interest to the credit of the

Superintendent at any money-order office throughout the colony, and free of all costs for remitting the money to Wellington. This is an arrangement at once convenient and economical for the large number of persons scattered all over the colony who have financial dealings with the Advances to Settlers Office. Loans may also be repaid in full through the Post Office.

The officials of the Government Advances to Settlers Office are bound by declaration to observe secrecy respecting applications for advances, and are forbidden to give any information respecting the business of the Department except to officers appointed to assist in carrying out the provisions of the Act.

The Act provides penalties for persons employed in the business of the Advances to Settlers Office taking any fee or reward from an applicant for a loan under the Act; for persons acting as valuers of land in which they have a pecuniary interest; and for persons who may attempt to bribe any one employed under the Act. It should be understood that no commission, charge, or procuration fee is payable in connection with an application for a loan.

The first meeting of the General Board for the purpose of considering applications for loans was held on 23rd February, 1895; and up to the 31st March, 1902, the Board had authorised 11,312 advances, amounting to £3,736,620. The total amount applied for in the 11,312 applications granted in full and partially was £4,253,000. 1,450 applicants declined the partial grants offered to them, amounting to £662,935; so that the net advances authorised at 31st March, 1902, numbered 9,862, and amounted to £3,073,685. The security for the net authorised advances was valued at £6,737,611. The number of applications received up to 31st March, 1902, was 14,746, for an aggregate amount of £5,204,300.

THE LAND-TAX AND INCOME-TAX.

By "The Land and Income Assessment Act, 1891," a system of taxation was instituted on the unimproved value of land and the capital value of mortgages of land, in conjunction with a tax on incomes in excess of £300 a year. Various amending Acts were passed from time to time, and in 1900 the law was consolidated in one measure—"The Land and Income Assessment Act, 1900."

Ten years' taxation on this basis has now been collected to date, and it may be safely claimed that the system has, from a financial point of view, been a success, and that the revenue is collected practically without friction.

The Land-tax.

The yield of land-tax for 1901–1902 was, in round figures, £313,000, of which about £234,000 represents ordinary tax; the balance, £79,000, being graduated tax, and the special tax on absentee landowners.

For the purposes of the "ordinary" land-tax, owners are allowed under the Act to deduct from the total unimproved value of their land the amount of any registered mortgage thereon, and the mortgagees are required to make a return of all their mortgages. In the case of uncompleted sales, where the title has not been transferred the amount of unpaid purchase-money is treated as a mortgage—that is, it may be deducted by the purchaser and must be included in the return made by the vendor.

An owner of land the unimproved value of which, together with mortgages owing to him, does not exceed £1,500 (after deducting mortgages owing by him) is allowed an exemption of £500, but where such value exceeds £1,500 the exemption diminishes by £1 for every £2 that such value increases, so that no exemption is allowable when £2,500 is reached.

The Act contains a provision that in cases where the income from any land or mortgages, *plus* income from all other sources, is less than £200 per annum, and the owner is incapacitated by age or infirmity from supplementing such income, a further exemption may be allowed by the Commissioner upon his being satisfied that the payment of the tax would entail hardship on such owner. This discretionary power has been exercised in a considerable number of instances, especially in the case of widows and orphans with small means, and much hardship prevented.

All mortgages are assessed at their full nominal value, except where it is satisfactorily shown that owing to depreciation of the security or other cause such value has been diminished. In the case of mixed mortgages—that is, mortgages which are secured on both real and personal property—the amount of the mortgage chargeable with land-tax is taken to be the assessed value of the land included in the security, the interest derived from the balance of mortgage being liable to income-tax.

It will be readily seen that the deductions and exemptions which have been referred to materially reduce the number of taxpayers as compared with the number of land-owners, the latter being upwards of 110,000, whilst the former only number about 17,500.

If the unimproved value of land in any assessment amounts to £5,000 or over, graduated tax is payable thereon according to the scale given on another page. Mortgages, however, are not chargeable with the graduated tax; but, on the other hand, no deduction is allowed in an assessment for graduated tax in respect of any mortgage owing on the land.

Twenty per cent. additional on the amount of the graduated tax is levied where the owners have been resident out of the colony for a period of not less than one year next preceding the date of the passing of the annual taxing Act.

Native lands which are occupied by Europeans are subject to the ordinary tax, it being considered that as such lands have benefited equally with the lands of Europeans by the expenditure of public money, they should bear some proportion of the taxation. But,

recognising that in some instances, where the interests of the Native owners are small, the collection of the tax might possibly entail some hardship, the Legislature decided that only half the usual rate should be collected on such lands. Graduated tax is not chargeable on Native land.

THE INCOME-TAX.

Both the number of income-tax payers and the amount of tax received may appear at first sight smaller than might be expected from the population of New Zealand, but it should be remembered that incomes from land and mortgages are exempt, the unimproved value of the former and the capital value of the latter being chargeable with land-tax in the manner hereinbefore explained. The statutory exemption of £300, *plus* life-insurance premiums up to £50, renders a very large number of employés and small traders exempt from the tax. Companies pay the tax on profits, and dividends are not returnable by their shareholders. These circumstances will account for the smallness of the number (6,200) subject to income-tax and, to a certain extent, the comparatively inconsiderable contribution to the revenue.

Objections to income assessments are heard in private before the Stipendiary Magistrate.

It is impossible to indicate the number and variety of questions which arise daily in connection with income assessments, or to give a full account of how they are dealt with.

Amongst the questions to which special attention has been given is that of the depreciation of plant and machinery, and the amount to be allowed as a deduction under this heading. The Amendment Act of 1894 admitted, amongst deductions, an allowance for depreciation of plant and machinery over and above what may be claimed as repairs and renewals, and this allowance is maintained in the Act of 1900. The allowance is, by law, fixed at what may be considered just by the Commissioner; but the Chief Inspector of Machinery is, in this matter, the expert adviser of the department, and he fixes the rates to be allowed. There have been naturally some differences of opinion between owners of machinery and the department, but only in the case of steamvessels has the Inspector found it necessary to alter the scale first laid down. The rule formulated for the Inspector's guidance is as follows:—

An allowance to be made of such an amount (over and above what is expended in renewals and repairs) as will equal the annual loss of profit-earning power.

This is not intended to provide for the loss of capital invested, but simply represents the annual loss through wear and tear (as affecting income-earning capacity), other than that which can be made good by renewals of parts and repairs.

Obsolete machinery is also allowed for when the machinery has been actually discarded; and here the amount to be allowed must

bear the same proportion to the whole loss as the time the tax has been in operation bears to the life of the machine. An engine discarded in the tenth year of the tax—the life of the engine being, say, twenty years—would be allowed for to one-half of the loss incurred, less the annual amounts that have been allowed by the department for depreciation during ten years. Machinery superseded by something better, but kept in reserve in case of a breakdown, is not allowed for.

In the consolidating Act of 1900, before referred to, a further allowance is made to taxpayers who occupy their own freehold or leasehold premises. Such taxpayers are now entitled to deduct a sum at the rate of 5 per cent. on the capital value of their interest in the land or improvements thereon. This concession is intended to remove an anomaly which previously existed as between a taxpayer in business who occupied premises for which he paid rent and one who occupied his own freehold, or premises erected on leasehold ground. In the first case rent was deducted, and in the hands of the landlord was not taxable, being income derived from land; in the second case the allowance was limited under the then existing law to 5 per cent. on the amount on which land-tax was paid. This might be nothing, and in the case of premises on leasehold land no allowance could then be made. As an equivalent of the rent paid by a tenant, a freeholder is now allowed a deduction of 5 per cent. on the capital value of his business premises; while a leaseholder, who was previously entitled to deduct his ground-rent only, is now allowed a further deduction of 5 per cent. on the capital value of any leasehold interest he may own in his business premises. Mortgage interest, however, is not now deductible. The deduction of 5 per cent. on the capital value of the taxpayer's interest in his business premises precludes any further deduction. The effect of the provision is to exclude land, with its profit or loss, from the income-tax system.

It should be mentioned here that the statutory exemption of £300 is not allowed to absentees, whether firms or individuals, nor in any case to companies.

Regulations have been issued for levying income-tax on the profits earned by shipowners whose headquarters are beyond the colony. The plan adopted is to require a return of the outward freight and passenger lists, and to levy tax at the rate of one shilling in the pound upon 5 per cent. of the total returned.

Yield of Tax.

The yield of land-tax and income-tax for the last five years has, in round figures, been as follows:—

Year.	Land-tax.	Income-tax.
	£	£
1897-8	269,000	115,000
1898-9	298,000	115,500
1899-1900	294,000	129,000
1900-1	294,000	173,000
1901-2	313,000	179,000

Rates of Tax.

The rates of tax at present are as follow: The ordinary land-tax is 1d. in the pound; the graduated tax commences at £5,000, at ⅛d. in the pound on the unimproved value, and rises to 2d. where the unimproved value of an owner's land is £210,000, or exceeds that sum. The ordinary tax on Native land occupied by Europeans is ½d. in the pound. For taxpayers other than companies the rate of income-tax is 6d. in the pound on the first taxable £1,000—that is, after deducting the £300 exemption—and 1s. in the pound on any excess over £1,000. A person having an annual income of £1,900 would be thus taxed: £300 would be exempted; £1,000 would pay 6d. in the pound; and the remaining £600, 1s. in the pound: making a total of £55 a year. The tax on an income of £400 would be at 6d. on £100, equal to £2 10s. Income-tax is payable by companies, at the uniform rate of 1s. in the pound.

The schedule of rates of graduated land-tax is as follows:—

Where the value is £5,000 and is less than £10,000,	one-eighth of a penny in the pound sterling.
Where the value is £10,000 and is less than £15,000,	two-eighths of a penny in the pound sterling.
Where the value is £15,000 and is less than £20,000,	three-eighths of a penny in the pound sterling.
Where the value is £20,000 and is less than £25,000,	four-eighths of a penny in the pound sterling.
Where the value is £25,000 and is less than £30,000,	five-eighths of a penny in the pound sterling.
Where the value is £30,000 and is less than £40,000,	six-eighths of a penny in the pound sterling.
Where the value is £40,000 and is less than £50,000,	seven-eighths of a penny in the pound sterling.
Where the value is £50,000 and is less than £70,000,	one penny in the pound sterling.
Where the value is £70,000 and is less than £90,000,	one penny and one-eighth of a penny in the pound sterling.
Where the value is £90,000 and is less than £110,000,	one penny and two-eighths of a penny in the pound sterling.
Where the value is £110,000 and is less than £130,000,	one penny and three-eighths of a penny in the pound sterling.
Where the value is £130,000 and is less than £150,000,	one penny and four-eighths of a penny in the pound sterling.
Where the value is £150,000 and is less than £170,000,	one penny and five-eighths of a penny in the pound sterling.
Where the value is £170,000 and is less than £190,000,	one penny and six-eighths of a penny in the pound sterling.
Where the value is £190,000 and is less than £210,000,	one penny and seven-eighths of a penny in the pound sterling.
Where the value is £210,000 or exceeds that sum,	twopence in the pound sterling.

"THE GOVERNMENT VALUATION OF LAND ACT, 1896."

THE above Act provides for the periodical valuation of all landed properties in New Zealand, and for that purpose the colony is divided into special districts.

The first valuation was made as at 31st March, 1898, since which date valuations in many parts of the colony have been revised as circumstances required. An Amendment Act passed during the session of 1900 contains the amendments which four years' experience of the original Act showed to be desirable. As the principle of the original Act remains unaltered, the amendments are practically confined to the machinery clauses and the clearer definition of terms.

The valuations are used for the following purposes: Land-tax, local rates (in cases where rates are levied on the capital or on the unimproved value), stamp duties, and duties under "The Deceased Persons' Estates Duties Act, 1881"; for advances and investments on mortgage of land made by the Post Office, Government Insurance Department, Public Trust Office, Government Advances to Settlers Office, and the Commissioners of the Public Debts Sinking Funds. The valuation is also used for the guidance of the Government in transactions under "The Land for Settlements Act, 1894," and "The Public Works Act, 1894."

Valuations are supplied by the department on payment of the prescribed fee.

The cost of making the valuation is borne principally by the Valuation Department, the Land- and Income-tax Department, the Advances to Settlers Office, and the local authorities using the valuation, while separate fees, for supplying individual valuations to those requiring them, are charged by regulation.

RATING ON UNIMPROVED VALUE OF LAND.

"THE Rating on Unimproved Value Act, 1896," was passed by the General Assembly to afford local bodies the opportunity of adopting the principle of rating which is expressed in the title of the measure. It is entirely at the option of the bodies to adopt the system, and provision is made for a return to the old system of rating, if desired, after three years' experience of the new one. The Act provides that a proportion of the ratepayers on the roll,

varying from 25 per cent. where the total number does not exceed 100, to 15 per cent. where the number exceeds 300, may by demand in writing, delivered to the chairman of the district, require that a proposal to rate property on the basis of the unimproved value may be submitted to the ratepayers, whose votes shall be taken between twenty-one and twenty-eight days after delivery of the demand. The poll is to be taken in the same manner as in case of a proposal to raise a loan in the district under "The Local Bodies' Loans Act, 1886."

Under the original Act it was necessary for a minimum number of one-third of the ratepayers to vote, and a majority of their votes carried the proposal. Now, under "The Local Government Voting Reform Act, 1899," the question of adoption or otherwise is decided by a bare majority of the valid votes recorded, irrespective of the number of ratepayers who have voted.

A rescinding proposal can be carried at a poll by the same means as one for adoption, but not until after three years have elapsed, and, *vice versâ*, rejection of a proposal bars its being again brought forward for a similar period. However, in the case of past polls at which the proposal to adopt the Act was rejected solely on account of an insufficient number of ratepayers recording their votes, it is now provided that a new poll may be held at any time.

The valuation-roll is supplied to the local authority by the Valuer-General under the provisions of "The Government Valuation of Land Act, 1896," and its amendment of 1900, and the definitions of "capital value," "improvements," "unimproved value," and "value of improvements" found in these Acts apply also to the Rating on Unimproved Value Act. Provision is made for adjustment of rating powers given under previous Acts to the Act of 1896 by fixing equivalents. Thus a rate of 1s. in the pound on the annual value under former Acts is to be considered equal to ¾d. in the pound on the capital value under the Act of 1896.

The adjustments are to be made so that the rates on the unimproved value shall be such as to produce as much as, but not more than, the rates under "The Rating Act, 1894." For instance, supposing a local authority has a rating power up to ¾d. in the pound on the capital value, then it can levy any rate in the pound on the unimproved value of land in its district *so long as the producing capacity of such rate is not greater than would be the producing capacity of a ¾d. rate on the capital value of the district.* When a fixed rate, under the older system of rating, is security for a loan, the Controller and Auditor-General is given power to interfere and fix the new rate himself if of opinion that the new rate on the unimproved value does not afford equally good security to the one to be given up.

The operation of the Act does not apply to water, gas, electric light, sewage, nor hospital and charitable aid rates.

Up to the present time (31st March, 1902) the local bodies that have submitted the question of the adoption of the Act to the ratepayers are as follow:—

RATING ON UNIMPROVED VALUE ACT, 1896."

	Results of Polls.	Votes recorded.		
		For.	Against.	Informal.
Auckland City	Rejected ..	753	1,697	..
Cheviot County	Carried ..	165	41	..
Devonport Borough ..	" ..	356	109	..
Eketahuna County ..	" ..	149	21	1
Feilding Borough ..	" ..	268	56	1
Gore Borough	" ..	122	67	5
Grey Lynn Borough ..	" ..	140	71	2
Greymouth Borough ..	" ..	214	48	1
Hamilton Borough ..	" ..	77	52	..
Hokianga County ..	" ..	109	25	6
Hokitika Borough ..	" ..	212	53	3
Hunua Road District ..	" ..	60	2	..
Inangahua County ..	" ..	284	11	2
Invercargill Borough ..	" ..	386	174	4
Karori Borough	" ..	93	3	1
Linwood Borough ..	" ..	276	38	2
Lower Hutt Borough ..	" ..	94	68	4
Manawatu Road District ..	" ..	105	10	..
Maraetai Road District ..	" ..	16	..	..
Masterton Borough ..	" ..	221	139	6
Melrose Borough	" ..	236	40	6
Mosgiel Borough	Rejected ..	58	87	1
Normanby Town District ..	Carried ..	82	56	3
Onslow Borough	" ..	140	8	..
Pahiatua Borough ..	" ..	136	38	1
Pahiatua County ..	" ..	350	31	3
Palmerston North Borough	" ..	402	12	3
Papakura Road District ..	" ..	30	1	..
Pelorus Road District ..	" ..	98	41	..
Petone Borough	*Rejected ..	100	134	4
Picton Borough	Rejected ..	27	73	1
Raglan County	*Carried ..	116	85	2
St. Albans Borough ..	Carried ..	350	218	15
South Invercargill Borough	" ..	106	54	1
Southland County ..	" ..	919	574	..
Spreydon Road District ..	" ..	141	57	4
Stratford County	" ..	399	23	2
Sumner Borough	* " ..	91	19	..
Sydenham Borough ..	" ..	353	193	..
Tauranga County ..	" ..	90	13	2
Taratahi-Carterton Road District	" ..	261	53	..
Timaru Borough	Rejected ..	93	246	5
Waimate Borough ..	Carried ..	235	61	14
Waimate County	" ..	368	162	..
Waipawa County	" ..	462	28	3
Wairarapa North County ..	Rejected ..	331	68	10
Wellington City	Carried ..	1,261	591	..
Winton Borough	" ..	39	33	1
Woodville Borough ..	" ..	175	7	1
Woolston Borough ..	Rejected ..	103	191	5

* New poll taken under Act of 1900.

"THE MUNICIPAL FRANCHISE REFORM ACT, 1898."

A SHORT account of the leading features of this measure is to be found on page 298, *ante*, in the section relating to the local bodies in the colony.

OLD-AGE PENSIONS.

IN 1898 a Bill, introduced into Parliament by the Right Hon. R. J. Seddon, Premier, became law,* which provided for the payment of an old-age pension out of the Consolidated Fund (revenue of the General Government) to persons duly qualified, without contribution by the beneficiaries. The Act, however, only provided for payments out of revenue, for the purposes of the pensions, until the close of the second session of the present Parliament. [*By amendment passed in 1900 the limit as to time of the operation of the principal Act is rescinded, and the authority to pay made absolute.*] The conditions under which pension is granted are set forth in sections 7, 8, and 64 of the statute, as under:—

7. Subject to the provisions of this Act, every person of the full age of sixty-five years or upwards shall, whilst in the colony, be entitled to a pension as hereinafter specified.

8. No such person shall be entitled to a pension under this Act unless he fulfils the following conditions, that is to say:—

(1.) That he is residing in the colony on the date when he establishes his claim to the pension; and also

(2.) That he has so resided continuously for not less than twenty-five years immediately preceding such date:

Provided that continuous residence in the colony shall not be deemed to have been interrupted by occasional absence therefrom unless the total period of all such absence exceeds two years; nor, in the case of a seaman, by absence therefrom whilst serving on board a vessel registered in and trading to and from the colony if he establishes the fact that during such absence his family or home was in the colony [*By amendment passed in 1900, as an alternative condition in respect of residence an absence of four years from the colony is allowed, provided that the claimant was not absent during the year ended 31st October, 1898, and provided that the total period of actual residence is not less than twenty-five years*]; and also

(3.) That during the period of twelve years immediately preceding such date he has not been imprisoned for four months, or on four occasions, for any offence punishable by imprisonment for twelve months or upwards, and dishonouring him in the public estimation; and also

(4.) That during the period of twenty-five years immediately preceding such

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* A Bill had been previously introduced in 1897, which, as amended by the lower branch of the Legislature, was transmitted to the Legislative Council, but thrown out by that body.

As a preliminary to the introduction of the Bill in 1897, an Act entitled "The Registration of People's Claims Act" was passed in 1896, under which persons aged sixty-five years or upwards, having resided twenty years in the colony, and whose income did not exceed £50 per annum, were allowed for a limited time to send in pension-claims. This Act was subsequently repealed, and all certificates granted under it cancelled, by the Old-age Pensions Act of 1898.

date he has not been imprisoned for a term of five years with or without hard labour for any offence dishonouring him in the public estimation; and also

(5.) That the claimant has not at any time for a period of six months or upwards, if a husband, deserted his wife, or without just cause failed to provide her with adequate means of maintenance, or neglected to maintain such of his children as were under the age of fourteen years; or, if a wife, deserted her husband or such of her children as were under that age:

Provided that, if the pension-certificate is issued, the pensioner's rights thereunder shall not be affected by any disqualification contained in this subsection unless the fact of such disqualification is established at any time to the satisfaction of a Stipendiary Magistrate; and also

(6.) That he is of good moral character, and is, and has for five years immediately preceding such date been, leading a sober and reputable life; and also

(7.) That his yearly income does not amount to fifty-two pounds or upwards, computed as hereinafter provided [*By amendment passed in 1900 the property and income of husband and wife is to be computed as belonging to them jointly, and their united yearly incomes, including the pension, is limited to £78*]; and also

(8.) That the net capital value of his accumulated property does not amount to two hundred and seventy pounds or upwards, computed and assessed as hereinafter provided; and also

(9.) That he has not directly or indirectly deprived himself of property or income in order to qualify for a pension; and also

(10.) That he is the holder of a pension-certificate as hereinafter provided.

64. This Act, in so far as it provides for the granting of pensions, shall not apply to—

(1.) Aboriginal natives of New Zealand to whom moneys other than pensions are paid out of the sums appropriated for Native purposes by "The Civil List Act, 1863"; nor to

(2.) Aliens; nor to

(3.) Naturalised subjects, except such as have been naturalised for the period of five years next preceding the date on which they establish their pension-claims [*By amendment passed in 1900, in the case of naturalised persons the term of qualification preceding the establishment of a pension-claim is reduced from five years to one*]; nor to

(4.) Chinese or other Asiatics, whether naturalised or not.

If, in the opinion of a Magistrate adjudicating, it would be more advantageous for a Maori applying for a pension to receive an allowance out of the moneys appropriated for Native purposes, he may, in lieu of granting pension, make recommendation accordingly to the Native Minister. A Magistrate may, in granting a pension to a Maori, direct that it be paid to some Government officer for the benefit of the applicant.

The full pension is £18 a year, payable in twelve monthly instalments; but for each £1 of income above £34, also for each £15 of accumulated property above £50, £1 is deducted from the amount of the pension.

The first instalment of the pension is payable on the first day of the month next but one following the date of the certificate.

For the administration of the Act the colony is divided into seventy-two districts, for each of which there is a Deputy Registrar, controlled by a Chief Registrar at Wellington.

Each claimant for a pension must make application on a printed form. The said form is obtainable at any post-office, and when completed the claim is to be sent to the Deputy Registrar for the district in which the claimant resides.

Each application is recorded in a book called "The ..... District Old-age Pension-claim Register," and then transmitted to a Stipendiary Magistrate, who, having fixed a day for investigation, notifies the claimant to attend, if his presence is considered necessary. If the claim is admitted the Stipendiary Magistrate issues a certificate to the Deputy Registrar, who on receipt enters the particulars in a book called "The ..... District Old-age Pension Register," after which a pension-certificate is issued to the pensioner.

The particulars of pensions granted are entered on a weekly return form, which, with the Magistrate's certificate, is sent to the Chief Registrar for entry in the General Register of Old-age Pensions.

The particulars of instalments falling due are advised to the General Post Office on a schedule. Advice, authorising payment, is then issued to the Postmaster at the money-order office at which the pensioner desired the instalment to be paid. At frequent intervals the Accountant of the General Post Office furnishes a statement of the payments made, from which the monthly instalments are entered on a card bearing the name of the pensioner.

At the due date of the instalment the pensioner may present his certificate for payment at the money-order office named in the certificate. A pensioner failing to collect his instalment within twenty-one days forfeits the amount, but may apply for a warrant of waiver within fourteen days of such forfeiture. [*By amendments passed in 1900 and 1901 the currency of each instalment is for one calendar month, with power to the Colonial Treasurer to extend the period in special cases.*] If a pensioner is unable, through sickness or other reasonable cause, to collect his pension, he may apply to have an agent appointed to receive the instalments on his behalf. Should a pensioner desire to change the office of payment an application is to be made to the Deputy Registrar for the district in which the pension is registered. The change is advised to the Chief Registrar by telegram, who notifies the postal authorities. A transfer of a pension-certificate from one district to another is effected by the Deputy Registrar for the district in which the pension is registered sending a warrant to the Deputy Registrar for the district to which the transfer is made.

The decease of all persons of the age of sixty-five years and upwards is notified to the Chief Registrar by the Registrars of Deaths in the various districts. By amendment passed in 1900 the right of pensioners to admission to charitable institutions is protected.

All matters affecting the payment of pensions are reported by the Deputy Registrars from time to time.

The Act came into force on 1st November, 1898. The appointment of a Registrar followed; and in December the old-age pension

districts were constituted, and Deputy Registrars appointed for them. By the 31st March, 1899, there were 7,443 pensions, which represented a yearly payment of £128,082. A year later the number of pensions in force was 11,285, representing a yearly payment of £193,718. On the 31st March, 1901, the number in force was 12,405, the yearly payment for these being £211,965; and on the 31st March, 1902, there were 12,776 pensions, and the amount was £217,192.

The number of pensions in force in each of the old-age pension districts was:—

NUMBER AND ANNUAL VALUE OF PENSIONS GRANTED TO EUROPEANS AND MAORIS IN FORCE ON THE 31ST MARCH, 1902.

District.	Europeans.		Maori.		Totals.	
	Number of Pensions.	Amount.	Number of Pensions.	Amount.	Number of Pensions.	Amount.
		£		£		£
Akaroa ..	41	697	9	153	50	850
Amberley ..	7	119	..	..	7	119
Ashburton ..	199	3,383	..	..	199	3,383
Auckland ..	1,008	17,136	8	136	1,016	17,272
Balclutha ..	139	2,363	..	..	139	2,363
Blenheim ..	155	2,635	1	17	156	2,652
Chatham Islands ..	3	51	1	17	4	68
Christchurch ..	1,222	20,774	6	102	1,228	20,876
Clyde ..	100	1,700	..	..	100	1,700
Coromandel ..	89	1,513	39	663	128	2,176
Culverden ..	3	51	..	..	3	51
Dannevirke ..	147	2,499	1	17	148	2,516
Dargaville ..	62	1,054	17	289	79	1,343
Dunedin ..	985	16,745	1	17	986	16,762
Fairlie ..	10	170	..	..	10	170
Feilding ..	91	1,547	9	153	100	1,700
Geraldine ..	130	2,210	9	153	139	2,363
Gisborne ..	55	935	37	629	92	1,564
Greymouth ..	488	8,296	..	..	488	8,296
Greytown ..	82	1,394	1	17	83	1,411
Hamilton ..	150	2,550	16	272	166	2,822
Havelock ..	7	119	..	..	7	119
Hawera ..	61	1,037	4	68	65	1,105
Helensville ..	246	4,182	13	221	259	4,403
Hokitika ..	507	8,619	2	34	509	8,653
Invercargill ..	584	9,928	1	17	585	9,945
Kaiapoi ..	282	4,794	6	102	288	4,896
Kaikoura ..	24	408	1	17	25	425
Kaitaia ..	12	204	47	799	59	1,003
Lawrence ..	209	3,553	..	..	209	3,553
Mangonui ..	10	170	21	357	31	527
Marton ..	79	1,343	15	255	94	1,598
Masterton ..	89	1,513	1	17	90	1,530
Maungaturoto ..	41	697	..	..	41	697

District.	Europeans.		Maori.		Totals.	
	Number of Pensions.	Amount.	Number of Pensions.	Amount.	Number of Pensions.	Amount.
		£		£		£
Milton ..	125	2,125	..	..	125	2,125
Motueka ..	73	1,241	..	..	73	1,241
Napier ..	260	4,420	4	68	264	4,488
Naseby ..	82	1,394	..	..	82	1,394
Nelson ..	292	4,964	4	68	296	5,032
New Plymouth ..	204	3,468	26	442	230	3,910
Oamaru ..	243	4,131	3	51	246	4,182
Opotiki ..	14	238	27	459	41	697
Otahuhu ..	240	4,080	13	221	253	4,301
Otaki	56	952	15	255	71	1,207
Paeroa	52	884	6	102	58	986
Pahiatua ..	38	646	..	..	38	646
Palmerston North ..	160	2,720	9	153	169	2,873
Palmerston South ..	60	1,020	..	..	60	1,020
Patea	25	425	4	68	29	493
Port Awanui ..	4	68	28	476	32	544
Port Chalmers ..	187	3,179	7	119	194	3,298
Queenstown ..	106	1,802	..	..	106	1,802
Raglan	14	238	64	1,088	78	1,326
Rawene ..	17	289	94	1,598	111	1,887
Reefton ..	151	2,567	..	..	151	2,567
Riverton ..	125	2,125	5	85	130	2,210
Rotorua ..	8	136	57	969	65	1,105
Russell ..	60	1,020	96	1,632	156	2,652
Stratford ..	31	527	..	..	31	527
Taupo	1	17	35	595	36	612
Tauranga ..	28	476	47	799	75	1,275
Te Aroha ..	35	595	1	17	36	612
Thames ..	257	4,369	10	170	267	4,539
Timaru ..	149	2,533	..	..	149	2,533
Waimate ..	95	1,615	1	17	96	1,632
Waipawa ..	20	340	..	..	20	340
Wairoa ..	8	136	66	1,122	74	1,258
Wanganui ..	192	3,264	34	578	226	3,842
Warkworth ..	72	1,224	8	136	80	1,360
Wellington ..	495	8,415	5	85	500	8,500
Westport ..	248	4,216	4	68	252	4,284
Whakatane ..	9	153	84	1,428	93	1,581
Whangarei ..	155	2,635	7	119	162	2,754
Whangaroa ..	13	221	25	425	38	646
Total ..	11,721	199,257	1,055	17,935	12,776	217,192

With the above, a statement of the cost of administration year by year is furnished, to show the initial and consequent expense. The Deputy Registrars of Old-age Pensions are mostly Clerks of Stipendiary Magistrate's Courts; the adjudication on claims is by the Magistrates; and the payments are made through the Postal Department.

COST OF ADMINISTRATION OF "THE OLD-AGE PENSIONS ACT, 1898," FOR THE FINANCIAL YEARS ENDED

—	31 March, 1899.	31 March, 1900.	31 March, 1901.	31 March, 1902.
Salaries—	£	£	£	£
Registrar	100	100	100	100
Deputy Registrars	40	150	200	219
Other expenses—				
Advertising and printing	16	..	..	..
Clerical assistance	248	1,124	1,209	1,328
Travelling-expenses and interpreters' fees	84	309	194	190
Shorthand-writer (S.M. Courts) ..	19	..	..	..
Contributions to Post Office	..	466	500	500
Contingencies	3	211	176	138
Rent of offices	..	..	36	60
Total	510	2,360	2,415	2,535

The following remarks are taken from the Registrar's report on the transactions for the year ended 31st March, 1902:—

"During the year ended the 31st March, 1902, 1,694 new pensions were granted, of which 167 were granted to Maoris; 935 pensioners died, of whom 99 were Maoris; 206 pension-certificates, of which 48 were held by Maoris, were cancelled; and 182 pensions, of which 76 were granted to Maoris, lapsed through non-application for renewal. The cancelled certificates include 118 renewal claims by Europeans and 34 by Maoris which were refused.

"The total amount paid in respect of pensions during the year was £207,468 8s. 5d. This amount includes £41 0s. 5d. charged to a vote provided for the purpose of paying forfeited instalments in special cases, and portions of instalments accruing up to date of death.

"The total amount of absolutely forfeited instalments during the year was £2,998 10s.

"During the year, 510 pension-certificates, of which 58 were held by Maoris, were transferred from one old-age pension district to another."

NUMBER OF PENSIONS GRANTED SINCE THE ACT CAME INTO OPERATION; NUMBER OF DEATHS, CERTIFICATES CANCELLED, AND PENSIONS LAPSED DURING EACH YEAR; AND NUMBER OF PENSIONS IN FORCE AT END OF EACH YEAR.

Year ended	Number of Pensions granted.	Number of Deaths of Pensioners.	Number of Pension-certificates cancelled.	Number of Pensions lapsed.	Number of Pensions in Force at End of Year.
31st March, 1899 ..	7,487	38	6	..	7,443
" 1900 ..	4,699	786	65	6	11,285
" 1901 ..	2,227	815	227	65	12,405
" 1902 ..	1,694	935	206	182	12,776
Total ..	16,107	2,574	504	253	..

NEW ZEALAND CONSOLS.

THE purpose of "The New Zealand Consols Act, 1894," is, by providing for an inscription of such Consols, to give further facilities for the safe investment of savings. Practically, it establishes another branch of the Government Savings-Bank, with extended power of investment. Under section 3 the Colonial Treasurer is authorised to receive by way of deposits from persons in the colony sums of money up to £500,000 [*increased by £250,000 under provisions of section 2, Amendment Act, 1900*] ; but the amount deposited in any one year must not be more than £250,000. The currency of such deposits is not to exceed forty years. The present issue matures 1st February, 1910. The rate of interest must not exceed 4 per cent. The actual rate being paid is 3½ per cent. per annum.

Post-office money-order offices throughout the colony are made use of to receive applications for inscription, and also for payment of the half-yearly interest on the amounts deposited. The Receivers are the Postmasters, and the Registrar under the Act is the Secretary to the Treasury, Wellington.

Regulations have been issued, under which every deposit of money for inscription is to be accompanied by an application according to the form given further on, which is to be signed by the applicant and countersigned by the Receiver (Postmaster) taking the deposit. The person paying the money receives an interim receipt pending official acknowledgment from the Registrar at Wellington. The receipt subsequently given by the Registrar to the Consols-holder is not a negotiable document, or of monetary value, beyond its being proof of the deposit for purposes of inscription. A holder of Consols can obtain from the Registrar, on application and payment of 5s., a certified copy of any entry in the register relating to his deposit.

There is provision for the transfer of Consols from one holder to another on application being made to the Registrar according to the second form given, and payment of 1s. fee.

In case an inscriber desires to make use of his deposit, or any portion of it, to the extent of £5, or a multiple of £5, he can obtain a Consols certificate which is payable to bearer, and is transferable by delivery. This certificate entitles the holder to receive interest half-yearly at the same rate as the original inscription, and also to payment of the principal sum on the due date.

The application for the certificate must be according to the form appended, and the fee payable is 1s. for every one hundred pounds or aliquot part thereof expressed in the certificate. There is also a fee at the above rate for inscribing the amount of a Consols certificate. The form of Consols certificate is also given.

Interest on Consols for which no certificate has been issued is payable by warrant, and such warrants are transferable by indorsement in the manner provided in the form.

Interest on Consols for which a certificate has been issued is payable to the bearer of the certificate on presentation at any post-office money-order office, or at the Treasury, Wellington (see the last form).

The Act provides for the deposit of money by minors, which may be acceptable to parents as encouraging habits of thrift in children.

As stated previously, the present issue of Consols has a currency to the 1st February, 1910, and carries interest at the rate of three pounds ten shillings for every one hundred pounds deposited; and an assured investment of moneys bearing a fair rate of interest for so long a term should secure, when well known, a large portion of the deposits of our thrifty population.

Application for Inscription.

To the Registrar of Inscribed Consols,
Treasury, Wellington.

I [We], , of , having this day deposited at the sum of pounds shillings and pence, for investment in -per-cent. New Zealand Consols, hereby request that the same may be duly inscribed in the books of your office in the name of .

Signature of depositor:
Full address of depositor, together with name of nearest money-order office:

Dated at , this day of , 19 .

Deposit duly received as above.

Signature of Receiver: .

Application for Transfer.

In consideration of the sum of , the receipt whereof is hereby acknowledged, I [we], , of , do assign the sum of pounds shillings and pence, being my [our] interest or share in the New Zealand -per-cent. Inscribed Consols, under "The New Zealand Consols Act, 1894," and all my [our] property, right, and interest in and to the same, and the dividends thereon, unto , of , his [their] executors, administrators, or assigns, and the Registrar is hereby requested to transfer the same accordingly. The prescribed fee of is enclosed herewith.

Witness my [our] hand , this day of , 19 .

Witnessed by— Signature: .

Signature: .
Occupation: .
Address: .

I [We], , of , do hereby accept the above Consols, and apply for the transfer thereof to me [us].

Signature: .

Witnessed by—
Signature: .

Application for Consols Certificate.

Place: .
Date: , 19 .

To the Registrar of Inscribed Consols,
Treasury, Wellington.

I [We], , of , being the holder of New Zealand Inscribed Consols to the amount of pounds shillings and pence, do

hereby make application for a Consols certificate in favour of bearer for the sum of pounds, to be issued to me [us] in accordance with and subject to the provisions contained in "The New Zealand Consols Act, 1894." The prescribed fee of is enclosed herewith.

Witness— Signature:

Signature:

Occupation .

Address:

Consols Certificate.

No. . £ .

THE bearer of this certificate will be entitled to payment of the sum of pounds sterling upon presentation hereof at the Treasury at Wellington, New Zealand, on the day of , 19 , together with such interest, computed at the rate of sterling per centum per annum, as may be found to be unpaid on the before-mentioned date in accordance with the indorsements of interest-payments made hereon.

The principal and interest are a charge upon and shall be paid out of the accruing income of the Consolidated Fund of the colony.

Interest hereon at the rate of sterling per centum per annum is payable half-yearly, on the and in each year, at any post-office money-order office within the colony.

The amount of interest paid is to be indorsed on the back hereof by the person making such payment.

Dated at the office of the Registrar of Inscribed Consols, Wellington, , 19 .

, Registrar.

Countersigned—

, Controller and Auditor-General.

Entered, folio .

[On the back, indorsements of the half-yearly dividends paid by the Postmaster are to be duly made.]

Dividend Warrant.

To the Treasury at Wellington, or to the Postmaster at any post-office money-order office throughout the colony.

PLEASE pay or order the sum of pounds shillings and pence, being interest for half-year due , 19 , on £ per-cent. New Zealand Consols.

£ : : .

, Registrar.

I hereby acknowledge to have received the above-mentioned sum in full payment of interest for half-year due as above.

Signature: .

SECTION II.

AGRICULTURE IN NEW ZEALAND.

[By M. Murphy, F.L.S.]

It is generally admitted that there is no part of the British dominions where agriculture, in its widest sense, can be carried on with so much certainty and with such good results as in New Zealand. The range of latitude, extending as it does from 34° to 47° South, secures for the colony a diversity of climate which renders it suitable for all the products of subtropical and temperate zones, while an insular position protects it from the continuous and parching droughts which periodically inflict such terrible losses on the agriculturist and pastoralist of Australia and South America.

Again, the climate, although somewhat variable, never reaches the extremes of heat or cold. So genial, indeed, is it that most animals and plants, when first introduced to the colony, assume a vigour unknown to them before.

North Island.

All the best forage-plants and grasses thrive most admirably, continuing to grow throughout the year with little intermission. Stock of every sort thrive and fatten rapidly on the pastures, coming to maturity at an early age without the aid of roots or condimental foods. All cereals flourish equally well, more especially Indian corn, which produces from fifty to eighty bushels per acre.

So full is the soil of plant-food that several continuous crops of potatoes or cereals may be taken with little apparent exhaustion. Wheat, oats, and barley thrive where the soil is not too rich; otherwise they produce enormous crops of straw, without a corresponding yield of corn. The tobacco-plant thrives well, as do also hops and sorghum, broom-corn, peanut, hemp, ramee or rhea (China grass), together with a large variety of economic plants, the growth of which will one day afford employment for a large population. In addition to these, all the British, Chinese, and Japanese fruits, with oranges, lemons, limes, olives, and vines (in the northern part), flourish abundantly, requiring but ordinary care. Potatoes are largely grown, and yield heavy crops.

Much of the country along the south-west and west coast is now taken up, and the primeval forest is fast disappearing before the settler's axe. For the most part, the soil is fertile, and the growth of grass and clover is extremely rapid and vigorous when sown on the surface after the felled timber has been destroyed by fire.

To the British husbandman it will seem almost incredible that the best pasture-grasses grow and thrive as they do with no other preparation than the ashes resulting from the burnt timber—no ploughing and no previous loosening of the soil—yet, in less than a year from the date of scattering the seed, this same land will fatten from five to six sheep per acre.

So rapidly are these fertile forest-lands being cleared and converted into pastures that the demand for stock (principally dairy) has greatly increased, and this demand must continue for a series of years before it is fully met.

Those who in the past have watched the progress of New Zealand, especially of the North Island, have always maintained that when the Maori difficulties and other impediments to settlement were over, the prosperity of the country would advance at a very rapid rate. The time has now come, and all that is required to expedite the coming prosperity is the settlement of our lands by a thrifty class of settlers.

There are millions of acres yet unoccupied, a great portion of which is of good quality, and only waiting the hand of man to make it carry, with very little cost, large herds of dairy stock, with flocks of long-wool and crossbred sheep. The west coast of the island is essentially a cattle-country. Considerable areas in the midland districts are adapted to long-wool sheep, as is also the country along the east coast. Much of the country may be described as being good sheep-land, a large portion of which is quite capable of carrying two sheep to the acre, and some of it as many as three or four.

Middle Island.

If the North Island has a splendid inheritance in her forests, the Middle Island can boast of her magnificent plain-lands, rolling downs, and vast mountain ranges, all of which, to a greater or less degree, have already been made to contribute to the wealth of the colony.

The central portion of the Middle Island presented to the first-comers a vast plain, covered only with waving tussock-grass, offering little or no obstruction to the plough.

Travelling south, the country assumes a different character: easy, undulating downs, well watered, here and there interspersed with fertile plains, the greater portion admirably adapted for agriculture, and all of it suitable for pastoral purposes.

The climate of the Middle Island is not so warm in summer nor so mild in winter as that experienced in the North Island. However, as has already been stated, there are no extremes of heat or cold. Much more might be said in praise of this portion of the colony. It is deemed necessary to say so much in order that readers may better comprehend the comparative ease with which every kind of farming is carried on in New Zealand as compared with other countries less favourably situated.

Agricultural Statistics.

The following *resumé* of the statistics, as published in the *Gazette* for the past season, is sufficient to indicate the trend of the agricultural and pastoral industries; fuller particulars will be found in the statistical portion of this book. It will be seen that there has been a material falling-off in the areas devoted to cereal crops throughout the colony; but a perusal of the statistics referred to will show a more than corresponding increase of land laid down for pasturage.

The decrease in cereals is as follows: Wheat, 40,610 acres; oats, 35,609 acres; barley, 2,282 acres; maize, 1,359 acres. There has also been a falling-off in turnips and rape of 6,809 acres. Against this there has been an increase of land laid down in pasture (including surface-sown grass) of 538,266 acres in excess of last year. Potatoes, peas, beans, mangolds, and linseed have also increased to the amount of 8,042 acres, of which 2,165 acres was the increased area in linseed. The latter crop is for the most part grown in Poverty Bay, in the place of maize, which before the federation of the Australian Colonies and the increased tariff, found a ready market in Australia. This is a circumstance much to be regretted, for the continuous growth of linseed on the same land has a most impoverishing effect upon the soil.

The stock statistics show that horses have increased by 12,947 head, and cattle by 105,104. Pigs have decreased, the probable explanation of this being that the demand for dairy stock has been so increasingly large that the greater portion of the separated milk from the factories has been used for rearing calves.

The sheep returns afford convincing evidence of the phenomenal productiveness of our flocks; for, notwithstanding the enormous drain upon these, to sustain the ever-increasing demand of the frozen-meat trade, it will be seen that the increase over the previous returns is 877,904, the total number being 20,233,099, the highest total yet reached by the colony.

Varieties of Farming.

Sheep-farming, before the advent of the freezing-chamber, could only be carried on profitably on large areas, with large flocks, for the reason that wool and tallow were the only marketable products, the sale of fat sheep and lambs being confined to supplying the demand for local consumption. The new order has completely altered the condition of things from an agricultural point of view. Almost every farmer, small or large, now keeps his flock of breeding-ewes for the production of lambs for freezing, thereby necessitating the growth of root and forage crops, and so bringing about a greatly improved style of farming throughout the colony when compared with the previous system of universal corn-growing. The following notes (by "Ovis") may be taken as a fair exposition of farming

matters throughout the colony. He writes: "During the past season we have had another illustration of the inevitable swing of the pendulum in agricultural and pastoral pursuits. A year ago the prices of wheat and oats were at a low ebb of depression, while the sheep market was somewhat more than buoyant in the early part of the autumn. The area sown in grain was, as an almost natural consequence, restricted; and now we have the price of both wheat and oats comparatively high; but, notwithstanding the improvement in prices, the result of the past harvest has, upon the whole, been disappointing. The whole of Canterbury suffered from a dry and uncongenial spring, and, consequently, the average yield in the earlier districts was light, and in the later districts, where the crops derived substantial benefit from the rain which came in November, there has been the loss consequent upon a wet harvest. The harvest over a considerable area of the colony was exceptionally late; a large quantity of grain was standing out in the fields at the end of March when the floods came, and even before that time there was so much broken weather that harvesting work could not be pushed on. Taking the Canterbury district as a whole, it has suffered both from drought and flood, and, in respect of grain-growing, those who have suffered from excessive moisture, with heavier crops, are in a worse position than those who had light yields but were enabled to harvest the grain in good condition. Grain-growing is a truly precarious business, and fraught with anxiety, and it is not to be wondered at that farmers are ready to restrict the grain area when there is a prospect of good returns being obtainable from sheep. And yet a good price for grain in the fall of the year generally leads to an expansion in grain-growing, and this season will probably be no exception to the rule. Before committing themselves to the sowing of any largely extended acreage in grain, it would be well for farmers to consider what probability there is of the market holding good for another year. The high price of oats is due to the South African demand, and to the relatively small grain production. The quantity of oats in the country at the present time is estimated at some millions of bushels less than at the same period of last year."

The branch of farming which at present appears to have the best prospect before it is that of dairying. New Zealand butter is much appreciated by English consumers, and there seems to be a practically unlimited demand for it at paying prices. Dairying is an industry in which the Canterbury district is not at present so much interested as several other parts of the colony, and considering its special adaptability for sheep and grain-growing, dairying is never likely to assume such large relative proportions as in the North Island, and in some districts further South. Nevertheless the dairying industry is gradually taking a strong hold in Canterbury, and it is likely to expand to a very considerable extent. A population accustomed to sheep and grain do not take very readily to the monotonous slavery involved in dairy-farming. The work is

of a lighter character than much of that involved in grain-growing, and it finds employment for a class of labour for which grain and sheep afford no scope, but it is the continuous never-ending drudgery that is its most objectionable feature. Necessity, however, knows no law, and has no particular regard for personal inclination. The tendency in this country is in the direction of smaller holdings, and as the average size of the holding diminishes there must be corresponding alteration in methods of working them. Much of the land in the colony will never bear cutting up into very small farms; but, on the other hand, there is much that is suitable for close settlement; and it is obvious that a style of management which may be suitable on a farm of 500 or 1,000 acres would not answer in the case of a 200-acre farm, to say nothing of wider range of acreage. Sheep-farming requires a fair amount of room in order to be successfully carried on. A man on a small holding of rich land may be able to produce a large amount of feed in the course of a year, but his farm in all probability will not be suitable for breeding purposes, and he is thrown back on the very precarious chances of grazing, which means that, although in one year he may make large profits, in the following year he may make nothing. A man so situated is almost certain in the long-run to be led, if not driven, to exchange the irregular and doubtful profits of grazing for the steady and continuous returns of dairying.

Wheat.

The Canterbury Plains, the great wheat-growing district of the Middle Island, extend 150 miles north and south, running inland from the sea for forty miles, the whole forming an area of about 3,000,000 acres. A great portion of this vast plain is admirably adapted for the production of wheat, barley, and oats of the best quality, the growing of which has been carried on extensively since the foundation of the colony. The total area under wheat for threshing in the colony for the season 1901–1902 was 163,462 acres (exclusive of 454 acres cut for chaff and 3,544 acres fed off with stock), of which 119,531 acres were grown in Canterbury, the average yields being approximately 25 bushels per acre. The land is for the most part free from stones or impediments of any kind. Single-furrow ploughs are now rarely seen, double- and three-furrow ploughs being in general use, and an occasional steam plough. Three horses, occasionally four, with a man or a boy, can turn over three acres per day on the plains, at a cost of 5s. or 6s. per acre. A stroke of the disc or other harrow, followed by the seed-drill and light harrows, completes the operation of sowing.

Seed-sowing commences in May, and can be continued as weather permits through the winter, and in the heavy swamp-land (drained) on into September and even October. From 1¼ to 1½ and 2 bushels of seed per acre are usually sown, the quantity increasing as the season advances.

Oats and Barley.

Otago and Southland districts excel in the production of oats, which is their principal cereal crop. The total area sown for grain under this cereal for the season 1901–1902 was 405,924 acres, being an increase as compared with the previous season of 43,610 acres.

The yield of oats in Otago and Southland varies from 40 to 80 bushels per acre, the cost of production being about the same as wheat—viz., £2 per acre when grown from grass-land, and £1 10s. from stubble.

Malting barley, of very superior quality, is grown in Nelson and Marlborough, where the soil and climate appear to be particularly adapted to its culture.

The growing of this cereal (barley) for malting purposes requires more attention than it has yet received in this colony. It is claimed for this crop that it will show a better result than wheat, for the following reasons: (1) It is less exhaustive to the soil; (2) it gives an average yield of from 10 per cent. to 20 per cent. more than wheat; (3) the growing crop in favourable seasons can be fed off twice, or even three times, to the advantage of the subsequent yield of grain. Land of a light and calcareous nature, but unsuitable for wheat, will give a barley thin in the skin, and particularly suited for malting purposes. Barley is not a difficult crop to raise, but there are certain points that need careful attention, which, if neglected, would probably result in the production of an inferior sample, which would hardly pay for growing.

Root-crops.

Potatoes: Potatoes are largely grown throughout New Zealand. On suitable soils very heavy crops are raised, it being no uncommon thing to dig from 8 to 10 tons per acre, although the general average is much lower, for the reason that unsuitable land is frequently devoted to this crop. The area under potatoes in 1901–1902 was 31,259 acres, as against 28,524 acres grown in 1901—an increase of 2,735 acres. The bulk of the crop is planted without manure, but, where used, bonedust, superphosphate, blood-manure, or animal guano (which may be procured of first quality from the local manure manufactories), from 1 cwt. to 2 cwt. per acre, is applied with good results. The potato is, however, an expensive crop to grow, costing from £5 to £6 per acre, and it is perhaps the most precarious of all crops, as the prices fluctuate in a most erratic manner. In 1898 the price rose to £7 and £8 per ton; in 1899 it fell to £1 10s. and £2, and the crop of 1900 was barely saleable at £2, while the crop of 1902 has ranged in price from £3 to £4 per ton. Potato growers admit that £1 10s. per ton off the fork will pay better than £2 after being stored for any time. A feeling prevails amongst growers that if regular communication were established between New Zealand, the Cape, China, and Japan, a market would probably be opened up for produce, such as potatoes, onions, vegetables, fruits, &c., packed in cases or crates.

In federated Australia, with extended transcontinental railway communication, some one part of the continent will always be in a position to supply the wants of the other; it is only a matter of transport. In view of these contingencies, together with the increased Commonwealth tariff, it will at once be seen that New Zealand farmers will have to look further afield for a market for their surplus produce.

Land for potatoes is usually broken out of grass, skim-ploughed in autumn, ploughed deeply in spring, and thoroughly tilled; or potatoes may be grown in drills opened and closed with a double-furrow plough. The seed—15 cwt. per acre—is then ploughed in under every third furrow, the after-culture consisting of harrowing just as the crop is appearing over ground (by this means myriads of seedling weeds are destroyed); drill-grubbing, hoeing, horse-hoeing, and earthing-up being the subsequent operations. Heavy crops of wheat, oats, barley, beans, or peas can always be relied upon after potatoes, season permitting.

*Turnips:** The turnip crop of this season has been a fairly good one. On the plains of Canterbury the want of sufficient warmth and moisture at the critical period of turnip growth had an injurious effect on thousands of acres. In the southern portion of the Island the crop will be sufficient for the requirements of stock-owners. The area under this crop for the season 1901–1902 was 398,508 acres.

Rape is largely grown as sheep-feed, and may be sown either in early spring or immediately after harvest, the stubble being skim-ploughed or broken up with the spring-tined cultivator. This crop is invaluable in the early spring, and may be fed-off in time for oats or barley. Dairy-cattle, however, should not be fed on rape, as doing so destroys the flavour of the milk. This fodder plant ranks next in value to the turnip for fattening sheep and lambs, and forms a most valuable adjunct to that crop.

Mangolds and Carrots are largely grown in some districts. They cost more money per acre than turnips to produce, as they must be hand-hoed; nor are they so suitable a crop for cleaning the land. Turnip-sowing does not commence till November or December, affording ample time for the destruction of seedling weeds; this important opportunity is largely lost in the culture of the mangold, which is usually sown in October. Mangolds are, however, an invaluable crop on a stock-farm, as they do not reach their primest condition until the turnip-supply is exhausted, usually in August. From 30 to 60 tons per acre is not an uncommon yield of these roots, often without the aid of manure, on rich swamp land.

Carrots are also a valuable crop, especially for horses; on sandy loams the yield reaches 15 to 20 tons per acre. Carrots impart a pleasant flavour to butter, and should be largely grown for dairy stock.

* Valuable information on the growing of this crop will be found under this heading in the Year-book for 1901, page 478.

Fertilisers.

This industry has now assumed important dimensions—manufactured from the waste products of animals slaughtered for freezing and from imported bones. The demand for fertilisers is increasing from year to year, as our lands become more frequently cropped. In the early days of the freezing industry, when the demand for turnips became general, the native-grass land (tussock) was then in its natural state. All that was necessary was to turn this virgin soil over with a shallow furrow, harrow down, and sow the seed (a few ounces) to the acre, without any fertiliser whatever. A good crop was the inevitable result.

The plough has been over almost the whole of our available new lands. It is now found absolutely necessary to apply fertilisers with the seed to give the young plant a start. Assuming that 1½ cwt. per acre is used all over the 440,215 acres, the estimated area under root-crops this season, this would mean a demand for 30,000 tons, without taking into consideration that used for grain, orchards, &c. Professor Lowrey (of South Australia), the Director of Canterbury Agricultural College, has had under his consideration the important question of the profitable use of artificial manures in growing wheat on dry, hot soils of the Mallee country. His experiments, extending over a series of years, have finally resulted in the utmost importance to the grain-growing farmers of those regions, as he has demonstrated beyond a doubt that artificial manures can be profitably used for that purpose in that State. The Professor has already turned his attention to like matters as applied to New Zealand agriculture. One of the most practical farmers in New Zealand has, however, given it as his opinion that, with a proper course of rotation, it will be many years before it will be necessary to apply fertilisers to corn crops—except, indeed, in a few extreme cases. Experiments have been made with a view to testing how far fertilisers may be used for raising wheat on the thinner soils of the colony, with varying success. In some cases it has been demonstrated that the application of a nitrogenous manure resulted in an increased yield sufficient to justify the additional outlay per acre, in others the result was not favourable; however, the season has much to do with results from such experiments. The lack of moisture will nullify the good which might otherwise follow the application of fertilisers whether to root or cereal crops.

Seeds.

Clover: Saving clover for seed in favourable seasons is a lucrative industry, adding materially to the farmers' income. Clover is sown with a spring crop, usually of corn, lightly grazed in the following autumn, and then reserved for a crop of hay, which, according to the season, yields from 2 to 3 tons per acre when cut in November or early in December. Most farmers prefer feeding off

with sheep in preference to mowing for hay. The after-growth is then allowed to flower and seed, which it does very freely. Thousands of humble-bees may be seen in the clover-fields during the months of January, February, and March. The seed ripens in March, and is then cut and dried, and threshed out by machines known as clover-shellers. An acre of clover may yield in hay and seed from £8 to £10. It must, however, be stated that, while a good crop of clover-seed is a most lucrative one, it is nevertheless a most precarious one. Owing to the lateness of the season of ripening, it sometimes happens that the fertilisation is imperfect, resulting in a majority of barren heads. This has given rise to a controversy as to whether the proper bee has been introduced. The point was referred to the late Miss Ormerod, the English entomologist, who settled the question in the affirmative.

White and alsike clover are now grown in considerable quantities. White clover yields enormously: as much as 300 lb. of alsike seed has been obtained per acre. These clovers are not so dependent on the action of the humble-bee for their fertilisation. They mature earlier, and are more easily threshed and cleaned than cow-grass or clover.

Grass-seed Saving: All the most valuable British grasses flourish throughout New Zealand. Cocksfoot has been for many years a staple product of Banks Peninsula (Akaroa County), where the soil for the most part consists of decomposed volcanic rocks and vegetable mould. Large quantities of this seed are now raised in the North Island and in many other parts of the colony as well. The seed is of the finest description, frequently weighing 20 lb. to the bushel, 12 lb. being a standard bushel. Cocksfoot thrives on a very wide range of soil, from the richest to the poorest, preferring, of course, the former. It may be found on the dry stony plains of the interior, green and healthy, when the surrounding herbage, introduced or indigenous, has given in to the heat of the summer sun.

Growing ryegrass for seed is also an important industry. The seed is usually gathered by stripping; sometimes the grass is cut and tied and afterwards threshed by machinery. The average yield is from 15 to 20 bushels per acre, weighing from 25 lb. to 32 lb. per bushel, 20 lb. being the standard weight. A common practice is to graze the land till midsummer; to take the stock off for a few weeks, and then to run the stripper over the ground. By this primitive method 10 bushels per acre are sometimes secured, being of the finest quality. Ryegrass-seed is usually in good demand; the price varies according to the season, the usual price however is from 2s. 6d. to 3s. 6d. and 4s. per bushel.

Meadow fescue, one of the most valuable of all the grasses for permanent pasture on good land, is grown both in the North and Middle Islands, but as yet not very largely. A noticeable instance of the value of this grass for pasture purposes was illustrated in a paddock which came under the writer's notice. The paddock was

laid off into three equal parts of three acres each, and sown with perennial ryegrass, meadow fescue, and Italian ryegrass. When well grown, sheep were turned in. They at once commenced to feed on the fescue, eating it quite bare, while the perennial ryegrass was left almost untouched. The Italian ryegrass received considerable attention. The preference for the fescue was very marked. Growing grass-seed of all the finer kinds should be an important industry in New Zealand, but as yet very little attention is paid to it. All that is required is to select clean land and clean seed to commence with. Carefully conducted, the seed-growing business should prove a lucrative one.

Many of the indigenous grasses of New Zealand are possessed of considerable feeding value, but, unfortunately, few of them will stand too close feeding. The action of fire is especially injurious to most of them. Of recent years a great deal is being written about *Danthonia semiannularis* (one of the native oat-grasses) as a grass particularly adapted to some of the poorer soils in the North Island, where it is said to thrive admirably; it is also said to be able to resist the action of occasional grass-fires. There are many varieties of Danthonias, from the giant, coarse-growing snow-grass or oat-grass, to the fine-leaved varieties found in almost all the natural permanent pastures.

Small Seeds: New Zealand, from the nature of her soil and climate, offers a fine field for growing all kinds of farm and garden seeds. This circumstance has already attracted the attention of some of the larger seed-merchants of Great Britain, whose agents occasionally visit the colony with a view to inducing farmers and others to grow certain kinds of seeds. The industry is peculiarly adapted to small holdings, and well suited to young persons, the work being light and of an interesting character. Ready sale can be found for carefully-grown and carefully-cleaned garden seeds.

Other Crops.

Pulse: Peas and beans are largely grown for pig and horse feed, and for export; they form an excellent preparation for wheat. An extensive trade in peas of a certain description is done in the manufacturing towns of Great Britain; and efforts are now being made to secure a share of this trade for the colony by producing peas suitable for splitting for human food. The business should prove a most remunerative one. Thirty bushels of peas per acre are considered a fair crop, while 40 to 70 bushels of beans are often secured. As showing the extraordinary fertility of some of the lands in the Canterbury District, it may be mentioned that beans and wheat have been grown alternately on Kaiapoi Island for thirty years without any apparent diminution of yield, the crops of recent years being as abundant as those grown years ago; 40 to 50 bushels of wheat and 60 to 70 bushels of beans being the usual return per acre.

Cape Barley and Winter Oats: The demand for early spring feed has resulted in the growing of these plants for forage. Their extreme hardiness renders them well adapted for autumn sowing. If sown in March they are ready for feeding-off in May; they may be fed off again in July, and on till the beginning of October, when, if allowed to run to seed, they will produce 40 to 60 bushels per acre, or they may be ploughed in for turnips.

Tares are also grown, but not so largely as they deserve to be, especially for dairy stock. Mixed with oats, barley, or rye, they are excellent milk-producers; and when grown luxuriantly they destroy all kinds of weeds, and leave the land in fine condition for a spring corn-crop.

Lucerne: This permanent fodder-plant thrives admirably in most parts of New Zealand, yielding three to five cuttings in the year; and, if properly cultivated and well attended to, particularly in its early stage of growth, it will continue to yield liberal cuttings for seven or eight years, or even longer. This is a most excellent crop for the small or large farmer, furnishing, as it does, an abundant supply of succulent fodder, in deeply-cultivated soils, during the drier months of midsummer, as well as in the early spring. All farm animals are partial to lucerne; pigs thrive admirably upon it. No farm should be without a well cultivated plot of this plant. In deeply-cultivated land lucerne will yield several cuttings during the season, no matter how hot and dry the weather may be. It is this drought-resisting quality which renders lucerne such a valuable fodder plant in Queensland and New South Wales, where it is extensively grown for pasture purposes.

Cost of Working a Farm in New Zealand.

When comparing the cost of working a farm in England with one of the same size in the colony, several points have to be taken into account, such as the climate, the soil, labour, and machinery. In Australasia wages are higher than in Britain; as a set-off against this, New Zealand can claim, firstly, that there are more fine working days in the year, that the fields are much larger, that the latest improvements in machinery have been introduced, that the soil is more easily worked, and that the genial nature of the climate renders it unnecessary to house stock during the winter months, at least in the North Island, thus saving the cost of attendance; secondly, that farming operations may be carried on continuously throughout the ploughing and sowing season; and, thirdly, that the paddocks are so large, and usually so level, that the double- and treble-furrow plough may be worked by one man or youth with three horses, thus equalising the cost of labour, as we have shown that one man, or even a boy, will be quite equal to two men or boys in the Old Country, so that after all the difference in the rate of wages is not so great as might appear at first sight.

The hay-crop is simply cut one day, raked into windrows the next, and in a couple more it is ready for stacking.

Wheat is cut and tied by machinery, the stooks requiring no capping. It is frequently threshed out of the stook in favourable seasons, thereby saving the cost of stacking and thatching; but this method, although very general, is not recommended except in hot or dry seasons. When stacked, the stacks are rarely thatched, except, perhaps, on the weather side. This is a wise precaution, the neglect of which sometimes entails serious loss, as in the past autumn from incessant rains.

The manure bill, which is such a heavy item of annual expenditure with the British farmer, presses as yet very lightly on the farmers of the colony. It is, however, a notable fact that the use of fertilisers is becoming more general; 1 cwt. to 1½ cwt. of superphosphates per acre is used with the turnip and other root-crops, for the purpose of forcing the young plant into the rough leaf, when it will be out of one danger—the turnip-fly. It will nevertheless be seen that the colonial farmer has many advantages over the farmer of the Old Country.

It may also be pointed out that the application of one or two hundredweight per acre of superphosphate of lime produces better results in colonial soils than double the quantity would do in England, showing clearly that the natural richness of colonial soils is not yet exhausted.

The labour question and the laws regulating it, and other surrounding circumstances, are tending to bring about a considerable change in the condition of things agricultural. There is a fast-growing desire on the part of the workers to acquire holdings of their own, however small, rather than to labour for others. The settlement of the land in small holdings is chiefly, if not entirely, responsible for this laudable ambition.

There can be no doubt but that the policy of land settlement as developed by the late Sir John McKenzie has come to stay, and it requires but little power of divination to predict that, in the near future, we shall have a thrifty and numerous body of yeomanry settled throughout the country, assuming that this policy is vigorously carried out. Small capitalists, who have gladly availed themselves of the facilities offered by the regulations, whereby none of their cash is required for the purchase of the holding, leaving it available for the acquirement of implements and stock, are enabled to acquire comfortable homes.

Live Stock.

Cattle: The total number of cattle in the colony for 1901–1902 was 1,361,784.

Horses: The number of horses in the colony for 1901–1902 was 269,672.

Sheep: If any evidence was required to show how splendidly New Zealand is adapted for the production of sheep, it would be found in the fact that, according to the latest returns, the sheep stock of the colony up to the 30th April, 1901, was 20,233,099.

This is a remarkable result when it is considered that 1,806,671 frozen sheep and 1,513,017 frozen lambs were exported in 1901.

The returns made up to the 30th April, 1901, shows the distribution of the flocks of the colony to be as follows: In the North Island, 10,218,945; and in the South Island, 10,014,154: total, 20,233,099.

Pigs: The stock of pigs in the colony is estimated at 224,024. There is room for an enormous extension of this industry.

SHEEP.

Sheep: New Zealand has proved itself admirably adapted for the breeding of all classes of sheep, from the fine-combing merino to the strongest type of Lincoln. The merino occupies and thrives on the wild lands of the colony, from the snow-line to the border of the plains, as well as on the drier portions of the plains. The merino ewe furnishes the foundation for all the crossbred varieties. On the rich moist soils the Lincoln and Romney Marsh sheep flourish, while the finer English and Border Leicesters and Downs sheep occupy the drier lands.

Crossbred Sheep: Those bred from merino ewes and longwool rams, or from crossbred ewes with Down rams, are the most suitable for the frozen-meat trade, and are known as "freezers."

The dapper little Southdown flourishes wherever crossbreds thrive. Their more ponderous cousins, the Shropshire and Hampshire Downs, have their admirers, especially the Shropshire, which are largely used for crossing, with a view to producing early-maturing lambs. English Leicesters are also much sought after for this purpose, particularly in the Middle Island, where "prime Canterbury" mutton is produced.

Shearing commences in September, and is continued till January. The usual price per hundred is from 17s. 6d. to 20s. Shearing-machines are not so largely used as was expected when first introduced.

The average clips for the various breeds of sheep are approximately as follow: Merino, from 4 lb. to 7 lb.; quarter-breds, about 6½ lb.; half-breds, 7½ lb.; three-quarter-breds, 8½ lb.; Leicester, 10½ lb.; Lincoln, 11 lb. Of course, very much larger clips are obtained from special flocks, as much as 25 lb. to 30 lb. per sheep; but the above figures represent general averages.

The staple of New Zealand wool, especially the long-wool and cross-bred, is remarkable for its freedom from breaks and other imperfections incidental to countries subject to long droughts and scarcity of feed.

The most profitable sheep for New Zealand is that which combines the best fleece and the most suitable carcase for freezing purposes, together with early maturity. This is the class of sheep which some sheep-breeders have set themselves to produce. Whether such an animal, having fixity of type, can be evolved, remains to be proved; so much depends on the feed, situation, and soil.

The capability of New Zealand for producing mutton has not yet reached its limit. When the frozen-meat trade was first seriously considered, an assertion to the effect that the colony could soon find 1,000,000 sheep per annum for freezing without impairing the breeding-flocks was treated as highly chimerical by sheep-breeders of long experience. The annual output of sheep and lambs is now over three millions. Thirty-four freezing-factories have been established, with a total freezing capacity of about 3,665,000 carcases per annum. But, while congratulating the colony on the rapid development of the frozen-meat trade, it must be borne in mind that in Argentina strenuous efforts are being made to secure a share of the frozen-mutton trade carried on by New Zealand with Great Britain; Australia is also striving hard to share the trade with New Zealand. It must be admitted that with cheaper land, and a closer proximity to the markets of the world, Argentina will necessarily be a very formidable rival with Australasia. The only way to keep command of the market is to ship nothing but first quality mutton and lamb.

Raising lambs for the frozen-meat trade has become one of the mainstays of colonial farmers, large and small, especially the latter. As with butter and cheese, the returns are ready cash. The magnitude of this industry may best be estimated by the fact that in the year ended 31st December, 1901, the colony sent away 1,513,017 lambs. This, with the fact of an export of 1,806,671 sheep, is sufficient evidence of the great and important changes which have come over the agricultural industries of this colony—a condition of things which has brought about a system of farming calculated to develop to the utmost the resources of the country. Some 530,075 acres were devoted to root and other fodder crops this season for feeding sheep.

"The New Zealand Flock-book," published in 1895, is now thoroughly established, and is of great value to the owners of pure pedigree flocks. The Royal Agricultural Society of Victoria also publishes a Flock-book for British breeds of sheep. This is a step in the right direction, as flock-masters in South America demand a certificate to the effect that the cattle and sheep purchased by them are duly registered in an authorised Herd- or Flock-book. The value of these books is now so fully recognised that all the distinctive breeds of sheep in Britain and elsewhere have their recognised registers.

Horse-breeding.

The climate of New Zealand is admirably adapted for the breeding and rearing of horses of all kinds, especially draught-horses. Indeed it would be difficult to find better Clydesdale horses than those bred on the limestone soils of Oamaru and elsewhere. Some of the best blue-blood of this breed has from time to time been imported from Scotland, with the result that the breed is now well established in the colony.

The light-horse stock of the colony has risen into note through the production of animals which have rendered themselves famous on the colonial turf. The demand for horses suitable for remounts for the cavalry service in India is a continuous one, affording a ready market for the proper stamp of animal; shipments have from time to time been made to that country with varying results. The fact that large numbers of the horses purchased for the troops in South Africa came from America clearly shows what a good field we should have in this colony for the production on a large scale of this class of horse.

With a view to bringing the use of pure-bred sires within the reach of small selectors in the outlying blocks the Government have imported a few first-class horses and bulls of the most approved types, which cannot fail to have a most beneficial effect on the stock of the country. The Canterbury Agricultural and Pastoral Association publish a Draught-horse Stud-book, which is largely used by purchasers of that class of horses.

Cattle.

The colony possesses all the best strains of blood, and this is evidenced by the superior class of cattle to be met with throughout the settled districts, especially in the show yards. There are two Herd-books published by the Canterbury Agricultural and Pastoral Association—one for shorthorns, the other for breeds other than shorthorns. The value of properly kept herd-books is now fully recognised. Purchasers of animals for export to South America or elsewhere demand that they shall be duly registered in some authorised Herd- or Stud-book as a guarantee of pure breed. New Zealand is free from many of the diseases so disastrous to horned stock in other countries. It is said that Iceland is the only other spot on the earth which enjoys a similar immunity. With a view to maintaining this enviable position, the Government have prohibited vessels carrying live-stock from infected colonies touching at any of the ports of New Zealand except under certain conditions. This action is deemed necessary, owing to the prevalence of pleuro-pneumonia in Australia.

Dairy Stock.

The breeding of first-class dairy stock offers a field for profitable investment. Milking-cattle now command a fair price, and will continue to do so, owing to the increasing development of the dairy industry. The rearing of well-bred heifer calves will repay all the time and trouble bestowed thereon. Separated milk, although relieved of its butter-fat, loses little of its feeding value; the addition of a little linseed meal will restore the fatty constituents, which, however, are not the most valuable for feeding purposes. Ground oats, wheat, or barley added to the linseed mucilage will render calves fit for the butcher in a comparatively short time. An acre or so of European flax should be grown upon

every farm where stock-rearing is carried on. The fattening of calves for export has not yet been attempted in the colony, although there is a very large and lucrative market for veal calves in London, ranging from £4 to £6 and £7 per head. Much has still to be done in the way of improving the dairy stock of the colony. The yield of milk from fairly good milking-cattle is approximately 500 gal. per annum, although 700 gal. per head are frequently obtained from selected herds. The average quantity of milk obtained will no doubt be increased as more attention is paid to breeding, and proper feeding. The general management and feeding of dairy stock is a question demanding every attention. Kind treatment is essential to success; clean pastures, clear running water, and grasses of the best quality are all factors fully recognised wherever dairying is successfully carried out.

The average yield of butter from milk passed through the separator is 1 lb. for every 2½ gal. of milk of 10½ lb.; so that the average cow produces annually 200 lb. of butter, or 500 lb. of cheese, which, estimated at 4½d. per pound, will be worth about as much as the butter.

The Dairy Industry.

This industry continues to flourish throughout New Zealand. The export of butter for the year ended 31st March, 1902, reached 219,493 cwt., valued at £983,224; and of cheese, 86,476 cwt., value £189,992: or a total of £1,173,216. This industry is capable of much greater expansion without even increasing the number of milch cattle, but by improvement in breeding. The Government continues to spend large sums of money in teaching the art of butter-making, the proper method of packing, and shipping. Till recently nothing was done in the way of encouraging the breeding of better strains of cattle for the production of milk of superior quality as well as quantity. The Government, recognising the importance of this matter, have imported a few first-class sires for the use of those dairy farmers who are not in a position to secure the best bulls for their purpose. The service of these bulls has been fixed at a nominal scale, and is only available for selected animals. It will thus be seen that dairy farming has now developed into one of the settled industries of the colony. Graders are employed examining all butter and cheese for export, and who brand each packet with its proper quality. Factory-owners now recognise the fact that it is folly to pay freight on any but the best quality; and this remark applies to grain and meat as well. We have to compete against Canada, the United States, Denmark, Australia, and the Argentine. New Zealand dairymen must, therefore, endeavour to raise dairy cattle which will yield the maximum of milk of the best quality; in fact, nothing but intense farming will pay in the future, applied to every branch.

It is interesting and instructive to note the position which New Zealand now holds as a butter and cheese producer as compared

with other countries. The quantity of butter imported into the United Kingdom for the year ended 31st December, 1901, was 185,140 tons, valued at £19,296,648. Of this huge quantity, Denmark, with its area of only 14,000 square miles and population of 2,000,000, sent to the value of £8,950,497; France, £1,704,128; Russia, £1,655,352; Holland, £1,511,564; Canada, £1,008,002; Sweden, £938,889; Victoria, £921,508; New Zealand, with 100,000 square miles and 800,000 inhabitants, £819,534; United States, £689,164; New South Wales, £293,117; Germany and other countries combined, £804,893. Russia is now entering into competition with all of these countries, and will soon become a formidable rival, owing to the opening up of the resources of Siberia.

In 1901 the import of cheese into the United Kingdom amounted in value to £6,227,277, of which Canada supplied £3,697,780; the United States, £1,274,061; New Zealand, £249,017.

The complete sterilising of milk to destroy the germs of diseases like tuberculosis is a wise precaution. The operation consists of heating milk up to a certain temperature, and cooling it rapidly, a process which has been found to destroy the bacillus of tuberculosis known to be present in the milk of affected cattle. The Government veterinaries are employed examining the cattle, and a large number are annually tested with tuberculin, and when found affected they are destroyed, compensation being allowed.

Pigs.

These useful adjuncts to the dairy should hold a much more important position on all dairy farms in New Zealand than they do at present. The last statistics show that there has been a considerable falling-off in numbers. The favourite breed in New Zealand is the improved Berkshire. The large and small breeds of White Yorkshire are also to be met with, but are not so generally approved of as the black pigs. The Tamworth pig has its admirers amongst pig-breeders, as they answer admirably for crossing with black pigs. They produce good bacon pigs, making more lean meat and longer sides than the pure Berkshires. Pigs require no better attention than a good grass paddock, with a liberal supply of roots, and a little unthreshed pea-haulm for a few weeks before killing, with plenty of water, and shelter from the sun during the warmest summer months.

The breeding, rearing, and fattening of pigs is a source of wealth which is capable of considerable expansion. Several plants for the mild curing of bacon have been set up at the various freezing-factories, and by private persons and firms. The establishment of properly appointed pig-farms is a somewhat costly undertaking, as all the fences must be pig-proof. Doubtless this consideration has had a deterrent effect upon some, while others find the rearing of young stock for the dairy and the breeding of lambs a sufficiently profitable undertaking, besides causing less trouble. There is room

for an enormous expansion in this branch of rural industry, as may be gathered from the fact that the imports of bacon and pork into Great Britain for 1901 amounted in value to £13,590,176. Of this amount little Denmark sent £3,234,456.

Poultry.

The efforts being made by the Government to foster this industry are gradually producing the hoped-for results. The distribution of a better class of poultry is showing good results already. Farmers are beginning to see that their poultry-yard should form no mean auxiliary to the general return from the products of the farm. With such a climate as we have, there need be no difficulty in raising hundreds where dozens are now produced. The department is doing much to foster this industry. They receive the poultry in large numbers at the Government works in Christchurch and elsewhere, where they are sorted, packed, and frozen for shipment, with very good results.

The Fruit Industry.

From the North Cape to the Bluff Hill, in the extreme south of the Middle Island, the climate and soil are, for the most part, eminently adapted for the growth of a large variety of fruits. Generally speaking, pears, plums, quinces, apricots, figs, walnuts, cherries, gooseberries, currants, strawberries, and raspberries grow luxuriantly, producing abundant crops of fruit. In the Auckland District, oranges, lemons, and limes flourish: many groves are now bearing, and afford light and pleasant employment to a large number of persons. This employment will go on increasing as the plantations throughout the colony become older. The olive flourishes in the North Island, bearing heavy crops, and the manufacture of oil will assume important dimensions at no distant date.

Vine-growing is also carried on with tolerable success in many districts; tons of fruit grown under glass are sold in the Auckland markets annually. Signor Bragato, an Italian wine expert, has given it as his opinion that there are numerous localities in both Islands suited for growing vines for the manufacture of wine.

Away in the far north the banana grows and ripens its fruit, but it is not thought that it will ever enter into successful competition with those imported at so cheap a rate from the Pacific Islands.

Extensive orchards of apples have existed in Auckland for many years, and are still capable of producing an abundance of fruit, if kept free from codlin-moth and other pests. Orchard-planting is progressing, and must one day be a very important industry. Central Otago will also become a large fruit-producing district, being free from violent and scorching north-west winds.

The manufacture of cider is already assuming considerable dimensions, opening up a ready market for surplus fruit. The colonial-made article is rapidly coming into favour with the general public.

The drying of fruit has been fostered by the Government, who sent an expert through some of the apple-growing districts, giving practical lessons in the art of artificial fruit-drying. A great deal more might also be done in bottling fruits, and the manufacture of fruit-wine, if only for home consumption. The manufacture of jam is successfully carried on; there is, however, plenty of room for further developments in this direction.

Prospects of Small Farmers.

Those who have watched the course of events in other countries, so far as they affect the agricultural interests of New Zealand, have come to the conclusion that New Zealand will have to pay greater attention to the quality of her agricultural exports than has been given to them in the past. Our farmers cannot hope to compete with such countries as Australia and South America, where land is so much cheaper, and where mutton and beef of good quality can be produced; for cheap meat these must command the markets of the world. Happily for New Zealand, our climate and pastures are such that we can not only produce mutton equal to the finest English or Scotch, but we can produce more per acre than can be done in Australia. Our dairy-produce is now second to none, which is largely due to the system of manufacture.

Owing to her humid climate and fertile soil New Zealand is peculiarly well adapted for small holdings. Men of slender means can easily make homes for themselves and their families, always provided they know something of the work they undertake, and are, with their families, willing to work hard and live frugally for a few years. It is quite possible for a man with a few cows and pigs, together with poultry and bees, to make a good living, as markets for these products are now being opened up in England, and there is a good local market if the goods are properly prepared. There is also a continuous demand for the supply of coastal and ocean-going steamers. The facilities now given for obtaining land and money at reasonable rates offer great inducements to persons to settle upon the land. This is amply illustrated at Cheviot, where a fine estate has been cut up into moderate-sized farms, and let to farmers on perpetual lease at a rental representing 4 per cent. on the purchase-money. Prosperous homes have sprung up all over the settlement, and tree-planting* is being carried on by some of the settlers, which is an earnest of the stability of the settlement.

Tree-planting.

Mr. T. W. Adams, advocating the planting of trees and shrubs, says:—

"Most landholders, whether the land they hold is of a large or small amount, commence by planting a few trees or shrubs to decorate their home; but, unfortunately, they too often neglect them

* An interesting article on tree-planting was published in the Year-book for 1900, the reprinting of which on this occasion space will not allow.

when planted. Particularly is this the case on the farms where the pet lambs or the calves are allowed to destroy them, either by accident or because the plantation is the handiest place to enclose these animals. If one-half or even one-fourth of the trees that have been planted had received proper attention, many farmers' homes in New Zealand would present a more pleasing appearance than they do to-day. That it is desirable that the homes of people in the country should be made as beautiful as possible no one will deny. If farmers' homes had more trees and shrubs around them, and the love of beautiful trees, shrubs, flowers, and hardy fruits cultivated, the sons and daughters would not have the hankering after town life that they often now exhibit. To realise how much the imagery of the poets and of beauty in landscape painting depends upon sylvan scenery and rural association, we need but imagine how blank and dreary would poetry and painting appear without them. The pleasures to be derived from the cultivation of trees have been well described by Addison in one of the numbers of the *Spectator*. He says: 'There is indeed something truly magnificent in this kind of amusement. It gives a nobler aim to several parts of nature, it fills the earth with a variety of beautiful scenes, and has something in it like creation. For this reason, the pleasure of one who plants is something like that of a poet, who, as Aristotle observes, is more delighted with his productions than any other writer or artist whatsoever. Plantations have one advantage in them which is not to be found in most other works, as they give a pleasure of a more lasting date, and continually improve in the eye of the planter. When you have finished a building, or any other undertaking of a like nature, it immediately begins to decay on your hands; you see it brought to its utmost point of perfection, and from that time hastening to its ruin. On the contrary, when you have finished your plantations, they are still arriving at greater degrees of perfection as long as you live, and appear more delightful in each succeeding year than they did in the foregoing.'

"The benefit that a plantation is as a shelter for stock can hardly be overstated, and my success as a raiser of fat lambs I attribute to some considerable extent to the fact that my fields are so well sheltered from the cold south-westers; but, valuable as plantations are for beauty and shelter, it is far more important that they should be made for a supply of timber for the future, although it is possible that there may be a less demand for wood for some purposes, such as telegraph-poles, if wireless telegraphy succeeds, and for bridges, if in the future stone or iron is substituted for wood; yet, as time goes by, every year will add to the amount required for manufacturing purposes and for our export trade. The quantity of timber now used by our freezing companies, dairy factories, and other exporters requires a considerable area of forest land to produce it annually. What may we expect it to be in twenty years? And it requires more than twenty years to grow a saw-miller's tree. Remembering this, it behoves our legislators to see that there is no

waste of our present supply, and that provision is being made for the future. There are large areas of poor pumice-land that will grow trees still in the hands of the Crown, and, in the North, poor clay land that will grow kauri and many of the introduced trees to perfection; and the State may well undertake this work—a work that the most conservative of European States recognise as a legitimate State function. Good work, we believe, is already being done, and nothing could be better or more satisfactory than the experiment made last spring of employing prisoners to plant trees. This should be ultimately profitable to the country, and have a humanising and beneficial effect on the prisoners themselves.

"The Americans are thoroughly aroused to the necessity of conserving their present supply of timber and making preparation for the future by judicious planting of forest trees, a course New Zealand will do well to follow without delay; allowing their experience to be our guide, without waiting until we feel the pinch, as they do now in their manufacturing districts. Especially is it desirable that some experimental planting should be done in every county of New Zealand of those trees which have been found of the greatest commercial value in other countries of the world.

"Most, if not all, the leading and most valuable timber trees of the world would grow in some part of New Zealand; and, if the County Councils undertook the work, Mr. Matthews, the Chief Forester, would be able to suggest the species most likely to be best adapted to the particular district in which the experiment was to be made; and, at a very trifling cost, experiments in planting could be carried out that would be of untold value to the planters of the future. Experience has shown that one species prefers one situation, or a certain kind of soil, and another species a different one. This is well-known in some parts of New Zealand; and I remember on one occasion, when looking for land in a bush district, a friend experienced in this matter could tell from a long distance what kind of soil a certain tract would have by the species of trees growing upon it. There are trees that cannot be got to grow on a limestone country, while others show a preference for it, such as the olive, elm, Austrian pine, *Cedrus atlantica*, *Picea pinsapo*, and the following three pines: *Pinus laricio*, *P. excelsa*, and *P. tuberculata*.

"Besides the large tracts of pumice land and the poor clay lands of the North suitable for growing trees, there are on the New Zealand coasts enormous stretches of sand dunes that might be profitably planted with forest trees, and to the great benefit of the better country lying inland.

"During the last century several remarkable instances of arboricultural skill were exhibited in seaside planting, not to mention the great French experiment in the Bay of Biscay, of which much has been written, and which added a large area of valuable land to the country. In Great Britain, too, large tracts were reclaimed, and

are now producing large quantities of valuable products. One remarkable instance was in Morayshire, where a tract of several thousands of acres of shifting sands, the surface of which was continually influenced by the course of the wind, and upon which nothing ever grew, was planted with pines with marked success. Six years after the plants were put in the ground some of them were lifted, and the roots examined, and it was found that they had extended to an almost incredible distance, in many cases reaching a length of 20 ft. or more, with many fibres, illustrating in a very decided fashion the distance roots will travel in a free soil in search of food. Similar successful plantations have been made in the United States of America in recent years of *Pinus rigida*—a pine that grows well in Canterbury, although rather slowly.

"For coast planting in New Zealand, *Pinus pinaster*, *P. rigida*, *P. halepensis*, and *P. insignis* have been found very useful. There are also quite a number of native trees and shrubs that succeed admirably on the coast, and should be largely used in any attempt to reclaim the sand dunes, but only with a view to establishing the more valuable pines. For the Canterbury Plains and the drier parts of New Zealand there are a number of trees that promise to succeed really well. On the better land in Canterbury the oak is thriving well, and even on dry land, although somewhat scrubby, it has generally lived through the most trying seasons, and grew where the ash made no progress. Along the water-races it succeeds on the poorest land splendidly, and if planted would make a beautiful feature in the landscape, as well as provide shade for stock, and at a very early age produce large quantities of acorns for pigs. For the supply of commercial timber, the pines seem most suitable, as they have, a number of them, withstood both drought and frost. After a long experience and careful investigation I would especially recommend for Canterbury *Pinus laricio*, *P. ponderosa*, *P. jeffreyii* and *Pinus insignis*. The question is often asked with respect to the value of the wood of *P. insignis*, and by New Zealanders I think it is very much underrated, as although it may not be very durable, yet the very short time required to grow it to a marketable size, and the fact that it has been demonstrated that it is admirably suited for the making of butter-boxes and other purposes of a similar nature, shows that it is not to be despised.

"For the more moist and recently wooded parts of New Zealand there are many valuable trees that would grow to perfection; and those farmers who, having such land, have had the timber destroyed, willingly or unwillingly, would do well to plant shelter belts of the spruces, larch, and especially the ash, as we do not seem to have any other wood to take the place of the ash for tool handles and many other purposes. On such land, with a moist climate, no tree would make better shelter than what is commonly called the Oregon pine (*Abies douglasii*). It is a beautiful tree, grows with great rapidity, and the wood is very tough and durable."

SECTION III.

ROTORUA DISTRICT.

[For full details respecting the thermal springs and Sanatorium at Rotorua, see late Dr. Ginders's article in the Year-book, 1899, also published as a separate pamphlet. The analysis and action of the mineral waters, properties of various bath springs, with medical information as to cases suitable for treatment, will be found therein.]

Rotorua Town.

Rotorua Town is situated on the southern shores of the lake of that name, at an elevation of 915 ft. above the sea. The climate is bracing, without being too cold. It is accessible by rail from Auckland or the Thames, by coach from Tauranga and Napier, by rail and coach from Wellington *viâ* Hunterville and Toka-anu, or by river-steamer from Wanganui to Pipiriki and on by coach *viâ* Wai-o-uru, Toka-anu, and Taupo. There is a post and telegraph and money-order office. The streets and the best hotels and houses are lighted by electricity, the power developed being also used for pumping the sewage to a distance. The accommodation at the hotels and boardinghouses is excellent. The Government Sanatorium is a large building standing in its own grounds. It is well fitted with all requirements, and is in charge of a Resident Medical Officer.

Baths.

The principal baths are at Rotorua. The "Blue Bath" is a hot swimming-bath, fitted up with commodious dressing-rooms, cold showers, and hot douches; its water is of a saline nature. There is also a sulphur and vapour bath in connection with the swimming-bath. The "Duchess Bath," opened by the Duchess of Cornwall and York, is a highly finished and luxuriously fitted bathroom, supplied from the Rachel Pool. The "Priest's Bath" is in the main pavilion on the edge of the lake; its waters are acid and aluminous, and its temperature 98° to 106° Fahr. There are large public bath-houses — two for ladies and two for gentlemen — and private baths for special cases, with dressing-rooms, hot douches, and cold showers. In the same building is the "Rachel Bath," the water of which is alkaline-siliceous, its temperature being 194° Fahr. It consists of large public baths for each sex, with private baths for special cases, and dressing-room accommodation and showers. The "Ladies' Swimming-bath" is a large bath attached to the pavilion, its water being of the same quality as that of the "Blue Bath." The "Postmaster

Bath" is on the edge of the lake, but some distance from the other baths which are in the Sanatorium grounds. It is a hot bath, its waters being acid and supplementary to those of the "Priest's Bath" in their indications. It consists of six large public baths—three for men and three for women—with dressing and waiting rooms, cold showers, and hot douches. In addition to the baths mentioned, and not far from them, are such well-known ones as "Cameron's," "Painkiller," "Coffee-pot," "Stonewall Jackson," "Corlett's," "Saddler's," "The Gemini," and "Vaux" baths. All these are curative, but are not yet closed in. At Whaka-rewarewa, about 2 miles from the Sanatorium, the two principal baths are the "Oil Bath" and the "Spout Bath," both of which are hot and exceedingly good.

The Sanatorium gardens and grounds at Rotorua are nicely laid out and planted, the native shrubs being preserved and tastefully trimmed so as to give shade and resting-places.

Objects of Interest.

Visitors to Rotorua can within a day make any of the following excursions by way of varying the usual monotony of sleeping, eating, and bathing, and having something else to talk of and listen to than "symptoms":—

Ohine-mutu and Whaka-rewarewa.

In the morning walk or ride to Ohine-mutu, the old Native village, where there are many hot springs and Natives, the Anglican Mission Church, and the Native meeting-house. On the way to Ohine-mutu, going by way of the lake, the Roman Catholic Church is passed. In the Native Pa there are many boiling pools and baths, and a considerable Maori population, whose ways and manner of life form an interesting study. From Pukeroa Hill, which is a recreation reserve overlooking Ohine-mutu, several excellent views of the old and new townships of Rotorua may be obtained. In the afternoon Whaka-rewarewa may be visited, where there are geysers and another Native village and some healing-baths. At both Ohine-mutu and Whaka-rewarewa the habits of the Natives and their method of cooking by steam form amusing subjects of observation. Coaches run frequently between Rotorua and Whaka-rewarewa.

Hamurana and Tikitere.

Another enjoyable excursion for the day is to take to the water, and in one of the steam-launches visit the cold springs of Hamurana, situate on the northern shores of Lake Rotorua, then across to Te Ngae on the eastern shore—a stay *en route* may be made at the Island of Mokoia—where by arrangement one can be met by a coach or buggy and driven to Tikitere. From Tikitere the drive back to Rotorua is about 12 miles. Instead of doing this in one day and merely skimming over it, several enjoyable trips may be made out of

it. The visitor may steam over to Hamurana, where he can get canoes and paddle up the river to the springs, then have lunch on the beach or river-side, eat as many cherries as he may, if in season, and generally enjoy the scenery, returning to Rotorua by launch in time for dinner; or he may land on Mokoia, famed for its scenery and its story of Hinemoa and Tu-tane-kai, and spend a pleasant day there, returning in the afternoon. Another day's outing may be had by driving to Tikitere the whole way from Rotorua, seeing its wonders, horrors, and beauties; then visiting the Blue Lake near there, and returning by road in the afternoon. The last-mentioned trip is a favourite one, for the route is by the new road from Rotorua to the Rotoiti Lakes, Tikitere being reached in about two hours and a half. To quote from a writer in Bond's Almanac, Tikitere is "in form a valley filled with solfataras, mud-volcanoes, and boiling springs in a condition of fierce activity. In the centre are two boiling lakes, and the narrow strip of ground separating them is known as the 'Gates of Hades.' There are many interesting narrows of a like kind, and on the south side there is a valuable healing-spring." The hydro-thermal action is so great that the ground all round is in a continual tremble, making one half inclined to leave such dismal horrors far behind him. But this feeling soon wears off, and invalids, even ladies, live here for weeks in order to benefit by the valuable mud and other baths, which have effected so many cures. About half a mile north of the springs immense quantities of sulphur are dug by the Natives, and sent to Auckland for commercial purposes. Close by is the Blue Lake before referred to—a lovely piece of scenery—whilst a short climb up a small hill will reward the tourist by a view of Lake Rotoiti and surrounding country. The surrounding hills are still covered with erupted mud, now dry, but furrowed into many sharp crevices and gullies.

Te Wairoa and Tarawera.

A new tour has been arranged. Passengers leaving Rotorua by coach pass Lakes Tikitapu and Rotokakiti, arriving at the site of the buried village of Wairoa, where the remains of houses wrecked by the thermal outburst of Mount Tarawera on the night of the 10th June, 1886, are still to be seen. A rowing-boat is then taken across Lake Tarawera for 8 miles. Passing Moura, where the mountain in its eruption destroyed thirty-nine lives, tourists are landed at Te Ariki, where fifty-one persons lie buried. A short walk takes the visitor to Lake Rotomahana, where, from a point near the former site of the White Terraces, he is taken across in a boat. Passing near the site of the Pink Terraces, he is landed at the south end. Half an hour's walk takes him to the Southern Craters, whence a magnificent view is obtainable, showing Rotomahana in the foreground, with Tarawera in the distance. There are several large craters here, and below can be seen Echo Crater, with its pretty blue lake of boiling water, and the great geyser Waimangu.

Wai-o-tapu Valley.

This valley is about 22 miles from Rotorua on the road to Galatea. The springs there are many, and calmly beautiful compared with Tikitere.

The road goes through the Hemo Gorge. When this is passed the deep blue of Puarenga is seen. It is monotonous enough, the way leading through a valley which apparently at one time was a totara forest, dead logs of that timber being strewn all over the country. The land belongs to the Natives at present. A ride of 10 miles brings you to Pa-karaka, a Native settlement, from which a good view can be obtained of Mount Tarawera. Here a track leads to an old pa and an old Constabulary barrack at Kaiteriria, beautifully situated on the shore of the lake, but abandoned by Natives after the eruption. Earthquake Flat—so called from the numerous cracks which are the result of earthquakes—is 12½ miles.

Following the old road to Rotomahana, the site of the Pink and White Terraces, the top of the hill, Pareheru, is soon reached, and looking towards the north-east Tarawera, with its enormous chasm and desolation, lies before you. At your feet the great geyser of Waimangu sends its column of mud, water, and steam right up into the clouds, forming, indeed, a cloud of its own. Eastward and southward stands Mount Kakaramea as a sentinel at the entrance of the strange region, far to the east the Kaingaroa Plains, and beyond the Urewera (Tuhoe) country. Descending to the main road, a pleasing surprise awaits the visitor, for Mount Kakaramea stands in front—a most striking object, its sides covered with many-coloured earths, with puffs of white steam issuing here and there. Beautifully contrasting is the cool colour of Lake Ngahewa lying at its base. Soon the hotel at Wai-o-tapu is reached, where the traveller can lunch and visit the sights, and return to Rotorua. If, however, he has time, he had better stay the night and thoroughly explore the district.

Rotowhero–Wai-rakei Road.

The road from the Galatea–Wai-o-tapu–Rotorua junction at Rotowhero to Wai-rakei is passable for any kind of wheel traffic, passing mostly through pumice country, and is dry and hard. The latter portion, from the Waikato River to Wai-rakei, is completed, and there is a bridge crossing the Waikato River.

This road is an interesting one for sightseers. From Wai-o-tapu right along to the Waikato River hot steam-holes and springs are to be found on the way. Then the mighty Waikato River rolls past. At Ohaki there is a spring which for size and beauty is remarkable, besides other smaller ones. A divergence should be made to see the Aratiatia Rapids. On the drive to Wai-rakei a continuous view of Ngauruhoe and Ruapehu, with the Te Mari Crater steaming its straight column into the sky, is obtained. From the saddle above Atiahaka there is a grand view of Lake Taupo and the mountains on a clear day.

From Wai-rakei the tourist should obtain horses and visit Orakei-korako, about 12 miles away. This spot is one of the finest in the district; the Alum Cave alone is worth while going a long way to see.

The following are the sights on the drive from Rotorua to Wai-rakei: Wai-o-tapu Springs, 2 miles from junction, or 19 miles from Rotorua; Waikato River, 13 miles from junction; Ohaki Springs, 2½ miles from river; Orakei-korako Springs and Alum Caves, 12 miles by track from river; Aratiatia Rapids, 17½ miles from river, or 3 miles from Wai-rakei; Orakei-korako, 12 miles by track from Wai-rakei; Ngauruhoe-Ruapehu and Tongariro Range, most of the way from Waikato to Wai-rakei; Lake Taupo and Mountains, from Atiahaka Saddle; Wai-rakei Geysers, 1 mile from Wai-rakei, or 17½ miles from river.

The country is all open, except a little bush on the right hand from the junction to the river, above the Paeroa Settlement. On the north side of the Waikato River it is well watered, but on the south along the road only two small streams are passed. Generally the land is poor, mostly flat, occupied by Maoris here and there. The largest pa is at Ohaki, sometimes as many as a hundred Maoris being congregated there; the majority of the pas, however, range from thirty to fifty souls. Altogether there are about ten kaingas on the road from the Rotowhero Lake to Wai-rakei. At Wai-o-tapu and Wai-rakei there are comfortable hotels.

A good way of making the trip is for travellers to go to Wai-o-tapu from Rotorua *viâ* Lakes Tarawera and Rotomahana and Waimangu Geyser, see the sights there, and stay the night. Next day drive on to the river and Ohaki, then on to Aratiatia Rapids, and thence to Wai-rakei, staying the second night there, and seeing the sights in the Geyser Valley, then to Orakei-korako another day. Orakei-korako can also be reached on horseback from Atiamuri or from Earthquake Flat, both distant about 10 miles, the latter by following the telegraph-lines; or on horseback from Ohaki, distance 12 miles, thus affording a choice of four routes. The Wairakei–Atiamuri route is the best, and travellers will find it very interesting.

The Lakes: Rotoiti, Rotoehu, Rotoma.

An excursion lasting from one day to a week, or even more, according to the inclination of the traveller, can be made to the lakes from Rotorua. The tourist goes by launch to Tapuae-haruru, a Native village at the eastern end of Lake Rotoiti, where arrangements can be made for staying under canvas for any length of time, and from whence excursions may be made to the other lakes, and the Hot Spring of Waitangi, between Lakes Rotoehu and Rotoma. The scenery along the shores of these lakes is extremely fine, and the only way to get any idea of it is to go and see it. The road recently constructed from Rotorua goes past Tikitere, and along the shores of Rotoiti to Tapuae-haruru, and on to Te Teko and

Whakatane. It leads through the bush, following the course of the old Native track along the shores of Lake Rotoehu, past cherry groves and hot springs, to Lake Rotoma, so that the beauties of this district may be visited either by water or road. By a horse-track through the bush, leaving Lake Rotoiti at Te Ruato, a Native village, Lake Okataina can be reached in an hour's time. On Lake Rotorua pleasure-boats can be obtained, sailing or rowing; also tents and all necessary gear for camping.

Rotorua to Tirau and Okoroire.

If the visitor is tired of steam-holes, porridge-pots, geysers, and sulphur, and yearns to get the sulphury fumes from his nostrils and the uncanny sights from his mind, a drive to Tirau or Okoroire is the one thing needful to restore his faculties to their normal condition. Certainly at Okoroire one meets with hot springs and other thermal action, but they are small compared to those of Rotorua.

Leaving Rotorua, the coach travels on a good road along the western or prettiest side of Rotorua Lake, passing on the left Ngongo-taha Mountain, from whose summit a grand view may be obtained of the Bay of Plenty, including Mayor Island, Tauranga Harbour, Motiti, White Island, and Cape Runaway, together with other objects of interest and note.

Tarukenga is 9 miles from Rotorua, its chief attractions being a Native pa on the high ground. Here the visitor by rail from Auckland catches the first glimpse of the lakes, looking from an altitude of 1,000 ft. or 2,000 ft. above sea-level.

In the bush which is entered just beyond, nothing is more enjoyable on a fine day than a drive through its ever-changing hues of green, brown, and yellow. The prevailing trees are rimu, tawa, rata, and some totara and hinau, the mountain rimu especially recommending itself for building purposes.

Getting clear of the bush, the traveller soon comes in sight of cultivation, and reaches the Thames Valley, in which are situated Tirau and Okoroire. On the right is seen Matamata, the Te Aroha Ranges, and the Kaimai, on the left the valley of the Waikato, with the hills beyond. Still continuing the journey, the Waimakariri River is crossed, where there is a trout-hatchery established. Two miles further on the hotel is reached and the journey for the day is completed.

A few miles from Tirau, in the Matamata direction, is the Okoroire Sanatorium and health resort, where many tourists break their journey to or from Auckland. It has many features of interest similar to Rotorua, but on a much smaller scale, although each place has some particular charm all its own. The hotel is built on rising ground on the banks of the Waihou River, and the building commands a wide range of landscape.

Spacious and convenient bath-houses have been erected, connected by a covered way with the river, where visitors may enjoy the luxury of a cold plunge after a warm bath. In their respective seasons, shooting and fishing engage the attention of the tourist, and good bags in both branches of sport are generally obtained. The railway-station is about 5 miles from the Sanatorium, whither coaches convey visitors free of charge to the hotel door.

TE AROHA THERMAL SPRINGS.

Te Aroha is one of the favourite health resorts in New Zealand. It is very prettily situated on the Waihou (Thames) River, thirty-three miles southward from the Thames, and within easy reach of Auckland by rail. The township takes its name from the adjoining mountain, which rises to a height of over 3,000 ft., and contains numerous valleys and gullies filled with a great variety of tree-ferns and other forms of luxuriant vegetation. The climate is equable, dry, and salubrious. The accommodation for visitors is very good, and the natural attractiveness of the place has been largely added to by improvements carried out by the local authorities.

There are eighteen springs in the township under the control of a Domain Board; fifteen of the springs are hot or tepid. Seven large bath-houses have been comfortably fitted up; there is also a large building, containing a number of private single baths, and a summer-house, with fountain, providing the mineral water for internal use. The waters are, with the exception of the sulphur springs, saline and feebly alkaline, and strongly charged with carbonic-acid gas, which is constantly escaping from the springs in large quantities, rendering them effervescent and pleasant. These springs are very similar to those of Vichy (France), Ems (Germany), and Bilin (near Teplitz, Bohemia), and are quite equal to them in strength. Potash exists in all these waters, but only in very small quantity. Baths Nos. 1 to 15 inclusive, and No. 18, are colourless, with the exceptions of Nos. 4, 13, and 14, which are pale-yellow. No. 16 is turbid, owing to the presence of precipitated sulphur.

Bath No. 1, pleasantly situated up the hill, is set apart for ladies, and is much used.

Bath No. 2 is of large size, with waiting- and dressing-rooms attached. A short distance from it is a reservoir of hot water, containing 20,000 gallons. Three-fourths of the water from the springs supplying it is at a temperature of 90°, and the temperature of the rest from certain springs ranges up to 119°.

No. 3 bath-house is divided into private rooms, with a bath in each, fitted with hot- and cold-water valves to regulate the temperature as desired, and each provided with a shower.

Nos. 4, 5, and 6 are extensively patronised, and good bathing-houses are erected over the springs.

No. 15 spring is largely used for drinking, and, according to Dr. Alfred Wright, a late physician to the Thermal Springs Domain (from whose handbook on Te Aroha some of the particulars here given have been taken), its water is a valuable adjunct to the treatment of certain forms of dyspepsia and kidney affections No. 8 is also a drinking spring, but of lower temperature. No. 16 (cold) has little overflow. Sulphur is found in small quantities in the surrounding clay, and there is emitted a strong sulphurretted-hydrogen gas. No. 17, also a cold spring, is used for application in cases of eye affections. No. 18 is a cold soda-water spring.

In order to meet the demand which has sprung up for a potable supply of Te Aroha mineral water for drinking elsewhere than at the fountain, the Government permitted the granting of sole rights for a term of years to a company formed for the purpose of working and distributing the mineral waters, and the Te Aroha Soda and Mineral Water Company (Limited) had a large exhibit of these waters in the New Zealand Court at the Melbourne Centennial Exhibition of 1888.

ANALYSIS OF EIGHTEEN MINERAL WATERS FROM TE AROHA.—No. 4423.

Alkaline Waters 1 to 15, 17, and 18.

No.	Temp. in Deg. Fahr.	Chloride of Sodium.	Chloride of Potassium.	Sulphate of Soda.	Carbonate of Lime.	Carbonate of Magnesia.	Bicarbonate of Soda.	Silica.	Total Grains per Gallon.
1	102	60·25	1·72	38·32	10·77	6·86	461·56	7·56	587·04
2	112	60·45	1·90	32·67	7·12	4·21	426·29	7·12	539·76
3	112	60 51	with the sodium chloride	32·82	7·24	4·20	429·19	7 21	541·17
4	92	34·24		19·16	4·62	2·14	246·49	5·17	311·82
5	100	68·77		36·92	6·91	3·15	476·58	6·10	598·43
6	104	66·23		35·14	7·12	2·99	499·75	7·14	618·37
7	86	67·13		34·04	7·46	4·34	444·20	7·01	564·18
8	109	66·14	1·96	32·91	7·47	4·21	451·97	8·60	573·26
9	112	41·29	..	22·16	4·94	2·61	301·17	6·44	378·61
10	96	35·24	..	19·19	4·67	2·31	276·19	6·00	343·60
11	88	34·69	..	20·12	5 11	2·56	261·44	6·11	330·03
12	88	41·66	..	22·96	5·12	2·99	300·97	7·11	380·81
13	120	40·67	..	21·86	6·11	3·13	301·64	6·86	380·27
14	122	42·61	..	23·16	7 14	3·49	321·64	6·66	404·70
15	139	43·11	..	22·16	6·91	3·61	331·76	7·05	414·60
17	..	2·71	..	3·92	0·64	0·27	9·36	4·21	21·11
18	..	16·12	..	8·16	1·97	1·01	131·72	13·14	172·12

Nos. 1, 2, 8, 9, 10, 11, 12, 13, 14, 15, and 18 contain traces of alumina and iron-oxide.

Nos. 3, 4, 5, 6, and 7 contain traces of alumina, iron-oxide, and potassium.
No. 17 contains 1·4 gr. of sulphuretted hydrogen.

Important additions and improvements have been carried out. A bath-house, 98 ft. long by 28 ft., with a centre corridor 8 ft.

wide, laid with tile paving, and twenty-three rooms off it, nineteen of which are furnished with the best porcelain baths, was opened in 1898. To provide proper drainage and carry off all the water from the baths a pipe has been laid on from the Waihou River. Two concrete reservoirs, containing respectively 6,000 gallons and 20,000 gallons of hot water, have been laid down, and both are connected with pipes and valves. A large concrete swimming-bath, 40 ft. by 20 ft., and 3 ft. 9 in. to 5 ft. in depth, has been made at a convenient point to receive the overflows from these reservoirs. These and other additions were carried out at a cost of £3,860. After the completion of the railway to the Thames there was a large influx of visitors, and this caused a heavy drain on the supply of hot mineral water available for the baths. In order to obviate any possibility of a shortage, the Board decided to drive a prospecting tunnel, and the Government granted a subsidy of £150 towards this work. There is now an ample supply available, several good springs having been tapped in transit, some registering 120°. A lawn-tennis ground has been provided, and a bowling-green will probably be added as soon as the funds of the Board permit.

Te Aroha is 115 miles by rail from Auckland, thirteen miles from Paeroa, and thirty-three miles from the Thames. Coaches leave Paeroa frequently for the important goldfields of Karangahake, Waihi, and Waitekauri, so that these districts are also placed within easy reach of the healing waters. It is customary for many of the miners and residents on these goldfields to go to Te Aroha on Saturday and return on Monday morning; cheap return fares are provided by the Railway Department with the view of encouraging this branch of the passenger traffic. It may therefore be surmised that the increase in the Domain Board's revenue which has taken place since the railway was opened to Paeroa and the Thames will go on steadily augmenting year by year.

HANMER THERMAL SPRINGS.

Among the many pleasure and health resorts in the Middle Island of New Zealand the Hanmer Thermal Springs District is justly very popular. As a health-recruiting ground, pure and simple, it undoubtedly holds the first place. There are various reasons for this preference for Hanmer. It is situated beyond the Leslie Hills in the Nelson District, nearly a hundred miles from the hurry and bustle of a large city, and twenty-four miles from a railway-station. The healing natural waters are, of course, the great attraction. Their fame has gone abroad, and year by year brings an ever-increasing number of visitors. The climate must also be credited with its fair share of the attractiveness of the district. Although situated in latitude 42° 30′ S., the heat, even in midsummer, is not oppressive. The height of the springs above the sea-level, 1,220 ft., and the distance from the coast, thirty-two miles, insures a dry heat during

the day, with cool mornings and evenings. The air is bracing and salubrious, and allows feats of walking and hill-climbing to be performed with less fatigue than on the lower levels and in the more humid atmosphere near the coast.

Besides attracting the physically weak and the mere seeker after pleasure, Hanmer is yearly growing in favour with the fagged brain-worker, the nerve-worn man of affairs, and the mechanic who "needs a spell." To them Hanmer is a veritable Elysium, where business is not thought of. The world with its distracting cares and life-shortening ways is shut out.

Journey to Hanmer.

To get to Hanmer the train is taken from Christchurch to Culverden, the northern terminus at present of the Hurunui–Bluff railway system, a distance of sixty-nine miles. Leaving Christchurch at 7.35 a.m., Culverden is reached at 12.10 p.m. The railway runs through some of the most fertile country in the Middle Island. Along the route are the Townships of Kaiapoi, Rangiora, Amberley, and Waikari.

Culverden is the centre of the fine pastoral country which extends to the neighbourhood of Blenheim. Having lunched here, the passenger transfers himself and baggage to the coach, and the remaining portion of the journey is performed in three hours and a half. The coach route runs through the picturesque valley of the Waiau. The road winds in and out among the hills until crossing the river by a fine iron bridge the plains are unexpectedly reached. This level plateau, which stands at an altitude of 1,220 ft., is about ten miles long by four miles broad, and is surrounded on all sides by mountains, some of which rise over 5,000 ft. high. About the middle of the plains are the hot springs. These are of an alkaline and saline character, with a strong escape of sulphuretted hydrogen, and they possess undoubted curative properties for certain diseases.

Accommodation, etc., at the Springs.

The springs are situated in an area of 13 acres, enclosed by live fences and trees, and laid out in pleasant walks and lawns, bordered by flowers, all neatly kept. A croquet-lawn, tennis-court, and bowling-green have also been laid down. The hotel-accommodation for visitors is ample. The Government Sanatorium contains twenty-two bedrooms, two dining-rooms, smoking-rooms, drawing-room, sitting-room, doctor's consulting-room, &c. It is capable of accommodating about thirty persons—viz., fourteen in the first-class compartments and sixteen in the second-class rooms. The Sanatorium is chiefly used by patients whose complaints require them to live near the baths, and is, in fact, a good hotel, with separate rooms for first- and second-class guests.

"The Lodge" is a commodious two-story house within a few chains of the bathing-grounds. The Jollie's Pass Hotel (licensed)

is situated two miles and a half from the baths, and was originally built by the Government as an accommodation-house for travellers crossing the Pass, the great highway between Nelson and Canterbury. Mrs. Lahmert has a Temperance Hotel near the springs, and there are several other boarding-houses.

During the 1901–1902 season 2,347 persons visited the springs, taking 19,985 baths.

The bath-houses contain in all twenty-two private baths, with massage-rooms and Turkish baths supplied with hot and cold mineral-water. The water is brought in pipes from the adjacent springs. The temperature ranges from 86° to 97° Fahr., and may be increased at will to 114°. Besides the private baths there are a ladies' swimming-pool and a gentlemen's swimming-pool, both surrounded by high iron fences and covered by awnings. The average depth is 5 ft. The temperature of the pools is 85° Fahr., and is so comfortable that, once in, the bather hardly cares to come out again. The charge for the private baths is 1s. each or 8s. for twelve, while for the pool 6d. a bath is the price. Situated in the grounds is a pump-room used by patients drinking the waters which give relief in stomach, liver, and kidney troubles. The water is warm, and contains chloride of sodium and sulphurous acid, and many testify to its beneficial effect.

An arrangement of pipes enables the gases to be inhaled by the patient, and this, like the drinking of the waters, gives relief in cases of asthma and bronchial affections. Sufferers from these complaints find that the clear atmosphere of this upland valley has a wonderfully curative effect.

A comfortable reading-room has been provided in connection with the baths, on the tables of which may be found works descriptive of the scenery, resources, and history of New Zealand, also a few of the best monthlies, &c.

Natural gas is used to light and heat the baths, and to light, heat, and cook with, at the sanatorium.

A post- and telegraph-office supplies facilities for communicating with the outside world.

Masseuse Available.

In premises fitted up for her use, Miss Edith Cook, certificated masseuse, practises her art. She has great experience, and those who have been under her hands testify to her skill as a manipulator. In fact, it has come to be recognised that the bathing and the massage treatment go hand-in-hand towards effecting cures in cases of muscular ailments.

Medical Attendance Procurable.

Dr. Little, of Culverden, visits the springs once a week during the season, and his services are at the disposal of the visitors at moderate fees. If urgently required he can be communicated with by telephone at any moment.

Tourist Season, etc.

The tourist season extends from the 1st November to the 1st May, and during those months coaches from Culverden to Hanmer run daily up and down. During the rest of the year coaches only run on Tuesday and Saturday from Culverden, and from Hanmer on Monday and Thursday. The baths are open throughout the year; but the massage treatment can only be obtained during the summer months. The Government Sanatorium and the hotels and boarding-houses, of course, provide accommodation all the year round.

Apart from the cost of getting there—the railway issue through return first-class tickets from Christchurch for £1 10s., and from Dunedin, £4 2s. 6d.—Hanmer, unlike many other pleasure resorts, is not an expensive place to stay at. There are no "extras," in the shape of boating and driving excursions, as in the cold lakes district, and no guide-fees, as in the alpine district. The only way one can make extra expense is to indulge in a superfluity of baths, and that is hardly likely.

To those capable of Alpine work there are Mount Perceval (5,335 ft.) and Mount Captain (6,600 ft.). On a clear day, from either of these peaks, the Port Hills, Lake Ellesmere, and the long sweep of the Canterbury Plains to the ocean, can be seen. Jollie's Pass to the Saddle affords a fair morning's walk, so also does Jack's Pass, and there are many other short excursions which may be made by those whom the baths have restored to vigour.

There is good fishing in the Clarence, the Waiau, the Hanmer, and their tributary streams; while for dog and gun there is such game as hares, rabbits, wild ducks, and swamp-hens.

The analysis of water taken from No. 1 Spring at Hanmer Plains, made at the Colonial Museum in 1891, gave these results:—

Chloride of sodium	62·09
Chloride of potassium	0·15
Chloride of lithium	Trace
Iodide of magnesium	Trace
Carbonate of lime	0·55
Carbonate of magnesia	1·77
Carbonate of iron	0·05
Sulphate of soda	7·48
Carbonate of soda	2·66
Phosphate of alumina	Trace
Silica	2·63
Total grains per gallon ...	77·38
Gas—Sulphuretted hydrogen	2·19

An analysis made fourteen years ago, prior to the earthquake which occurred in 1888, by Professor Bickerton, of Christchurch, is

interesting from the fact that it includes an examination of the sediment and organic matter contained in the water. The sample was taken from Spring No. 8 before it was incorporated with No. 1. It is as follows :—

Sediment—Silica and free sulphur ...		1·400
Nitrogen as free ammonia ...	0·092	
" as albuminoid ammonia ...	0·048	
" as nitric acid	0·047	
Total nitrogen ...	———	0·187
Sulphuretted hydrogen, free ...		3·430
Sulphate of lime	9·940	
" " potash	1·960	
" soda	0·400	
Bicarbonate "	7·770	
Chloride "	56·230	
Bicarbonate of magnesia ...	0·640	
Total fixed matter ...	———	76·940
Total grains per gallon ...		81·957

The total amounts of fixed salts in the two analyses correspond very closely. The sulphates and carbonates in either case are so small that the fact of their varying in the two analyses is a matter of no importance. The fact of the discovery of traces of iodine and lithium in the recent analysis is interesting.

NOTES ON THE COOK AND OTHER PACIFIC ISLANDS ANNEXED TO NEW ZEALAND IN 1901.

[Taken from a report, dated 28th February, 1902, of the RESIDENT COMMISSIONER at RAROTONGA, and a series of descriptive articles by Mr. JOSIAH MARTIN.]

THE COOK GROUP.

RAROTONGA.

DISTANT from Auckland, 1,638 miles; circumference, 20 miles; height, 2,920 ft.; area, 30 square miles; population, 2,060.

Land and Land-tenure.

Rarotonga is, beyond all doubt, the most fertile and valuable of the Cook Group, and it has the largest population. The island has been exceptionally favoured by nature, not only with delightful scenic attractions, but also with a remarkably rich and productive soil—the source of abundant wealth. The secret of its great fertility is its excellent water-supply, which is due to its elevation. The climate, too, is most favourable, not only to vegetable but also to animal life. The island is, however, one of the least planted, for there are many tracts of land of the best quality on the south,

POPULATION of Cook and other Pacific Islands recently included within the boundaries of the Colony :—

	Persons.
Rarotonga*	2,060[a]
Mangaia	1,541
Atiu*	918[b]
Aitutaki*	1,170[c]
Mauke (or Parry Island)	370
Mitiaro	165
Hervey Islands	10
Total Cook group	6,234
Niue (or Savage Island)*	4,079[d]
Palmerston*	115[e]
Penrhyn (or Tongareva)*	445[f]
Manahiki*	484[g]
Rakaanga	400
Danger (or Pukapuka)	505
Suwarrow	30
Total other Islands	6,058
Total population of Islands included within the extended boundaries of the colony	12,292

* Results of census taken this year (1902).

(a) Birthplaces.—Rarotonga, 1,517; Mangaia, 206; Aitutaki, 58; Mauke, 16; Atiu, 37 Mitiaro, 11; Society Islands, 73; other Pacific islands, 59; United Kingdom, 30; America, 11; New Zealand, 21; China, 7; Germany, 5; Portugal, 5; Australia, 3; Jamaica, 1; New Guinea, 1.

(b) Birthplaces.—Atiu, 913; Rarotonga, 3; Austria, 1; China, 1.

(c) Not including 149 natives absent in ships or at the guano islands.

(d) Whites and half-castes living as whites, 28 persons: absent in ships or at Tonga, 418 persons.

(e) Birthplaces.—Palmerston atoll, 100; Manahiki, 10; Penrhyn, 3; Pukapuka, 1; Society Islands, 1.

(f) Birthplaces.—Penrhyn, 342; Cook Islands, 25; Society Islands, 64; Arorai, 2; United Kingdom, 8; other places, 4.

(g) Birthplaces.—Manahiki, 469; Pukapuka, 11; Society Islands, 3; England, 2.

[Inset, to face page 562.

west, and north-west coasts that produce little if anything. It must have supported at one time a population of many thousands, but they are now reduced to about 2,100 natives and whites.

At present the country is overrun with noxious weeds, some of them of very recent introduction; and they are spreading with a rapidity that necessitates the most persistent efforts to keep cultivated areas free from them. The cotton scale blight has also made its appearance in this and other islands.

The land-tenure of Rarotonga is as follows: In very ancient times the land was divided amongst the crew of the canoe that first took possession of the island, and the representatives of the eldest branch of each family are now known as Arikis, or Mataiapos, according to their original rank on landing. These chiefs have at all times been recognised as trustees for the descendants of the original ancestor who resided on the land; but they now claim the right to expel any man who dares to assert his independence, or act in any manner contrary to the views of his overlord. In olden days, when it was essential to the existence of a tribe that all should be of one mind and obedient to the chief, any one disputing his will might well have been turned off the land with the consent of the whole tribe. Now, however, this consent is not always deemed necessary by either Ariki or Mataiapo.

The People.

The aborigines of Rarotonga are very closely akin to the Maoris of New Zealand, and probably at one time had frequent intercourse with them. They are not naturally industrious, nor have they had any reason for becoming so; but as they are quite aware of the value of European goods, it may be concluded that they would work willingly enough if inducement offered. Industry would probably follow good land regulations; but these, it is considered, should compel a certain amount of fencing to be done every year.

The Seat of Government.

The seat and centre of the government of the Cook Islands—the double township of Avarua and Avatiu—is situated on the north or lee side of the Island of Rarotonga, opposite two small openings in the coral reef. The former has the advantage of a boat harbour, where small craft can be moored in safety when the wind is not blowing in from the sea. The residence of the Commissioner and the establishment of the ex-queen are situated here.

Though the dwellings of the natives are built of coral concrete, the Government offices are constructed of wood, and are not imposing in appearance.

Trade.

The value of goods imported into Rarotonga for the Cook and other islands for six years gives an average as under: From New Zealand, £15,137; from Tahiti, £7,724: total, £22,861.

Exports for the same period from the Cook Group: To New Zealand, £17,000; to Tahiti, £2,904: total, £19,904 per annum. From Penrhyn and other islands, *via* Rarotonga, £1,956.

The exports from Cook Islands comprise: Copra, 33 per cent.; fruit, including limejuice, 33 per cent.; coffee, 30 per cent.; cotton and other goods, 4 per cent. From Penrhyn and other islands: Pearlshell, 90 per cent.; copra, 10 per cent.

MANGAIA.

Distant from Rarotonga, 116 miles; circumference, 30 miles; height, 656 ft.; area, 30 square miles; population, 1,541.

Physical Features.

Mangaia is the most southerly island of the Cook Group, and is second in importance to Rarotonga only on account of its difficult and dangerous coast. A fringing reef closely surrounds the island, and there is no break or passage through which a boat can reach the shore. The sea-face of the reef is so steep that vessels can only with the greatest difficulty obtain an anchorage. Communication between them and the islanders is carried on by the latter in canoes, which they navigate most skilfully through the surf on the reef.

Mangaia is almost circular. Around it, rising gently from the shallow lagoon within the reef, is a narrow, sandy beach. From this there rises, almost abruptly, a steep cliff about 100 ft. in height of jagged and broken coral rock, pierced and tunnelled with numerous fissures and caves. On the top of this rise is a level plateau, known as the "makatea," which extends, about a mile in average width, nearly all round the island. The inner edge of this flattened ring descends again almost to sea-level, enclosing an ancient crater. In the midst of this rise several volcanic mounds, the highest having an elevation of 656 ft. The hollow area is drained by natural subterranean channels under the "makatea" into the sea. The eastern side of the island is a desert of basalt rock.

Productions.

Cocoanuts, bananas, oranges, limes, citrons and other fruits grow plentifully. The annual export of copra is large, as is also that of perishable fruits. The natives have cultivated much of the land, and owing to their industry the productions of the island have a favourable name. The coffee is the best produced in the Cook Group, not from any superiority of soil or climate, but because of the care exercised in picking and drying the berries.

As the general fertility of the land is below that of the other islands of the group, the natives produce better results because of the consequent necessity for cultivation. The "makatea" is espe-

Y.B. Lord Ranfurly reading Annexation Proclamation, Rarotonga.

cially suitable for the citrus family. Unfortunately the uncertainty of communication has prevented the development of the limejuice industry. In former years cotton was grown in large quantities and exported.

Mangaia is one of the few places in the world of which it can be said that every man, woman, and child owns land on defined boundaries sufficient for his or her support. From the most ancient times the soil has been most minutely subdivided.

Atiu.

Distant from Rarotonga, 116 miles; circumference, 20 miles; height, 374 ft.; area, 32 square miles; population, 918.

The Island.

Atiu resembles Mangaia in formation, being a raised mass of coral with high jagged cliffs facing the sea. It has a similar barrier to shipping round its shores, and communication with vessels must be by canoes launched over the sea-wall through the breakers. Every inch of Atiu is worthy of cultivation, though it has not that appearance of fertility that is so characteristic of Rarotonga and Aitutaki. The bare central ridge, with its red soil and low-growing fern, is deceptive, for it is really the best land.

Its Resources.

On the highest point of the ridge cocoanuts, bananas, oranges, and coffee grow with the utmost luxuriance; and the kumara, most valuable and uncertain of South Sea vegetables, yields large crops. The cocoanut-palm grows well everywhere, but especially so on the coral rock formation, though only a few hundred trees are to be found there. Coffee and oranges grow vigorously, but very few trees are to be seen. There is, however, an excuse for the non-cultivation of the orange, for men can hardly be expected to cultivate fruit for which there is no demand. It is only within the last two years that any anxiety has been shown to purchase the oranges of this island, except at the end of the season, when fruit has become scarce and therefore valuable. That the people of Atiu should have neglected to plant the cocoanut-palm extensively is, however, astonishing, for perishable fruits are unsuitable, inasmuch as a very moderate sea from the north or west will prevent their being shipped. With copra this would matter but little, for the cargo would receive no damage by delay. The result of this apathy or neglect is that the tribes of Atiu are about the most poverty-stricken people of the group. For this state of affairs the land tenure of the island may be in a measure responsible, as the old tribal system of New Zealand holds sway. There are but nine hundred people, and this being so it is obvious that under the most favourable circumstances this number of Polynesians could not occupy and cultivate two square miles of their island.

Mauke, Mitiaro, and Takutea belong to the Atiuans.

Mauke.

Distant from Rarotonga, 150 miles; circumference, 6 miles; height, about 60 ft.; area, 4½ square miles; population, 370.

Mauke is a low circular island about two miles across, lying to the north-east of Rarotonga. Like Mangaia and Atiu, it is surrounded by an unbroken fringing reef. It is marvellously fertile, and in value and quantity the produce exported is greater than that of Atiu; but the limit of production has not nearly been reached. Here also the "makatea," or coral zone, remains unplanted.

The value of a South Sea island can hardly be calculated by reference to the surface area, for the warm damp climate develops exceedingly active growth, whether the land be planted with cocoanuts, oranges, bananas, vanilla, or coffee. Large quantities of oranges are annually produced on Mauke.

Mitiaro.

Distant from Rarotonga, 140 miles; circumference, 5 miles; height, about 50 ft.; area, 4 square miles; population, 165.

This island is a good instance of an elevated coral reef, thinly coated with sand and gravel of the same material. The surface is not more than six feet above high-water mark, and on those rare occasions when the group is visited by a hurricane, there is but one spot on which the inhabitants can find safety, for the sea then breaks right across the island.

Copra is the only article of regular export, but in the centre of the island there is a fertile patch whereon oranges and bananas are grown with moderate success. The people live almost entirely on cocoanut and fish, and their appearance is such as to justify the Polynesian belief that no better food can be obtained for man. A few oranges are occasionally exported, but the wants of the inhabitants are supplied by the sale of some 40 tons of copra per annum. This amount might, however, be increased to 80 tons, or even more.

Takutea.

Distant from Rarotonga, 125 miles; area, 2 square miles.

This island is uninhabited, but belongs to the tribes of Atiu, who visit it for a few weeks in each year to make copra. It is a coral island, and is moderately fertile. It is probably capable of producing 100 tons of copra per annum, but at present the production is only 10 tons.

Aitutaki.

Distant from Rarotonga, 140 miles; circumference, 12 miles; height, 366 ft.; area, 7 square miles; population, 1,170.

The name includes the island anciently known as "Arahura," and some seven or eight smaller islands on the vast barrier reef. Some of these are volcanic, and would seem to have been small peaks on the lip of an extinct volcano, now submerged.

The island itself is pear-shaped, about four miles by two; its highest part (366 ft.) being situated near the centre of the enclosing triangle, with a long, low stalk curving round and joining the reef wall at the apex. This is a good illustration of an atoll in process of formation—the highest part of the original island not yet sunk beneath the waves. Through the western sea-wall is a narrow opening, out of which the sea is always running with considerable force, for it is the only escape for the water driven over the reef on the windward side. The channel is shallow and tortuous, and is the only means of landing on the island.

Productions and Land-tenure.

Some of the best oranges in the New Zealand market, known as "Tahiti," are from Aitutaki, while the best pineapples in the Eastern Pacific are from the same place. The remaining articles of export are copra, and limejuice of very good quality. Much of the former is produced on the islets.

The land-tenure of this island leaves nothing to be desired, for the soil has been minutely subdivided and each family well provided for. All that is now required is a properly constituted land tribunal to settle questions of title.

The People.

The Aitutakians are naturally a hardy race, and industrious when away from their own homes; but on their native soil much time is taken up with disputes over succession to intestate estates.

They are said to be the best sailors in the Cook Group, and their services are much in demand for working the cargo on vessels at Tahiti. They make fans and mats, and are expert at plaiting various fibres for hatmaking. Independent and conservative, they have preserved their right to prohibit the importation of intoxicants.

Some of the inhabitants have commenced to cultivate the land, and the produce of the island has nearly doubled in the last two years, being now greatly in excess of that of any other island if calculated on the basis of population.

Manuae and Te Au-o-Tu.

Distant from Rarotonga, 120 miles; area of Manuae, 1½ square miles; population, 10.

These two small islands are better known as the Hervey Group. They are situated about midway between Atiu and Aitutaki, and are owned by the people of the latter place, whose title is indisputable. They destroyed all of the original people except a few women, whose descendants have been admitted to have a certain claim apart from, but not superior to, the conquerers, as represented by the Arikis.

The islands have been leased to a European firm, with the result that the export of copra has risen from 36 tons in 1898 to 64 tons in 1901. During the same period the Cook Island Trading Company has planted thirty thousand young palms, and Manuae now bids fair to be the leading copra island of the Cook Group within the next ten or twelve years.

OTHER ISLANDS.

NIUE.

Distant from Rarotonga 580 miles; circumference, 40 miles; height, 200 ft.; area, about 100 or 110 square miles; population, 4,079.

Physical Features.

Niue, or Savage Island, is a long, low island, fringed with a misty cloud of fine spray caused by the breakers ceaselessly beating upon its jagged coasts. The shores being too deep and steep to support a barrier reef, the coast-line is deprived of its protection. It is fertile, and is probably three times as large as Rarotonga (being about seventeen miles in length and seven miles and a half in depth), but not more valuable. The soil is not volcanic, for the whole island is but an upheaval of coral reef, seamed and tunnelled in all directions. The coral has been more or less decomposed by atmospheric action, and the land is, therefore, fertile even where the rock is seen peeping from beneath the surface.

In consequence of the porous nature of the rock there are no streams in Niue, and fresh water is therefore very scarce. There are many deep caverns and stalactite caves, however, whence a supply of cool water is obtainable, but most of it is said to get brackish after a spell of dry weather.

Its Trade Resources.

Much of the land is encumbered with a dense scrub of guava bush, a few of these plants introduced into the island having increased and spread over large areas, from which it seems almost impossible to eradicate them.

The orange, the cocoanut, sugar-cane, cotton, and other tropical products grow well, and the lemon flourishes on the rocky shores. Notwithstanding these advantages, Niue appears to be condemned to depend almost entirely on the cocoanut for its export. The shores of the island are so precipitous that the few landing-places are not always approachable even in fine weather, and one—Mutulau—can only be negotiated when the wind is westerly, that is, during three weeks in the year. Under these circumstances perishable fruit could not be shipped successfully.

The great want of the island is a main road connecting all the villages with Alofi. Unfortunately, there are difficulties in this matter, it being necessary to blast out the face of a cliff if Mutulau

is to be connected with the chief town. Without good roads Niue can never make the most of its natural fertility, for at the present time most of the produce is carried on men's backs; and as the fixed price of labour at Niue is 4s. per diem, it would cost £6 per ton to carry copra from Mutulau to Alofi.

The People.

On account of their isolation, the natives of Niue are somewhat different in character from other Polynesians. They are very industrious, and the men are often engaged at Tonga and elsewhere as labourers. The girls and women plait hats, which are exported to New Zealand and Australia. They are keen traders, but are much averse to strangers obtaining a foothold in the island itself.

[A fuller and more special description of this island by Mr. S. Percy Smith, who acted as Special Commissioner for several months, will be found following on this article.]

PALMERSTON ATOLL.

Distant from Rarotonga, 273 miles; area, 1 square mile; population, 115.

The Palmerstons are situated upon an irregular ring of coral reef, measuring outside about four miles and a half by two miles and a half, just awash with the tide. This narrow ring is about half a mile in width, and it supports eight little islets, nearly all covered with cocoanut palms. The largest of these is little more than half a mile in length and about a quarter of a mile wide. Under its grove of palms is the settlement of the entire population of the group. The lagoon and reef abound with fish, and turtles are caught in plenty.

The group is leased to the family of the late William Masters, an old sailor from one of the Midland Counties, who was one of the first to plant the islets with the cocoanut palm. The lagoon is large, but does not produce pearl-shell; though it seems possible that if spawn were introduced it might thrive.

Copra is the only article of export, and this product is likely to increase in quantity, for the Masters family is still planting the waste lands and thinning out the palms where they have been too thickly planted.

PENRHYN.

Distant 735 miles from Rarotonga; area, 3 square miles; population, 445.

This atoll is known to the Polynesians under the names of Tongareva or Ma-ngaro-ngaro, and is valuable only by reason of the existence of pearl-shell beds in the extensive lagoon, which has a surface area of not less than a hundred square miles. The extent and value of these shell-beds is only imperfectly known, for the native population is small, and they do no more work than will provide them with food and clothing. It is not possible to do more than

estimate the yield of shell, but it is safe to say that not less than 70 tons is annually exported, and that the value is probably £200 per ton.

The cocoanut crop is small, though there are many trees on the long strip of coral sand that separates the ocean from the lagoon. The soil of Penrhyn does not apparently suit the cocoanut palm, or it may be, as the natives assert, that the rats destroy the young nuts. Whatever the cause, not more than 15 tons of copra is annually produced by this atoll.

Fresh water is very scarce at Penrhyn.

Suwarrow.

Distant from Rarotonga, 530 miles; area, ½ square mile; population, 30.

Suwarrow is an atoll with a splendid lagoon. The entrance will admit of vessels drawing from 15 ft. to 20 ft. of water passing through, and the lagoon itself forms an excellent harbour. The atoll is under lease to the Pacific Trading Company, but its only value is the lagoon, which produces a very good class of pearl-shell, taken by the aid of diving-dresses in water averaging from 20 to 28 fathoms in depth. The present yield of shell is nearly 50 tons per annum, but the beds are about to be given a long rest.

In October, 1901, there were about forty persons on the island, natives of Manahiki or Tahiti, but it is doubtful if there has ever been an indigenous or native population, for the islets of the reef are small, and no old cocoanut palms are to be seen.

The copra made on Suwarrow does not exceed 6 tons per annum, as many nuts are used by the pearl-shell fishers, and on several of the islets the trees are too young to bear fruit.

Manahiki and Rakahanga.

Distant from Rarotonga, 650 and 670 miles respectively; area, each 2 square miles: population, Manakihi, 484; Rakahanga, 400.

Manahiki, or Humphrey, is nearly circular, but there is no opening large enough for a boat to pass into the lagoon. The people are amiable and industrious, and are expert swimmers, as indeed are all the South Sea Islanders. Beche-de-mer is obtained from the lagoon. The island occasionally suffers from drought.

Rakahanga, or Rierson, is also an atoll. The inhabitants are much like those of Manahiki, and are happy and contented. Turtle are plentiful round the reef.

These islands may be treated as one, for they are not more than twenty-five miles apart, and belong to the same people, who are governed by two Arikis. The former has until lately produced a limited amount of pearl-shell, but about the end of 1900 it was found that the beds were exhausted by over-fishing. The lagoon was therefore closed to give it a much needed rest.

The only industry is now that of copra-making. Both islands are overplanted—indeed the yield of nuts would be greatly increased if three out of every four trees were cut down.

Pukapuka, or Danger Island, and Nassau.

Pukapuka is a small solitary atoll about three miles in diameter, which produces pearl-shell. It is about seven hundred miles from Rarotonga, and has an area of two square miles. The population is 505 persons.

Nassau is also a small island within the extended boundaries. It is said to be uninhabited.

EDUCATION.

The education of the children living in the Cook Group is in the hands of the London Mission Society, a non-sectarian but Protestant association, which provides some one thousand eight hundred children in the Cook and Northern Islands with a sound and useful education. At Tereora, in Rarotonga, there is a very useful institution at which the mission supplies an English education for the children of those leading men that are willing to pay a small fee per annum. At the present time there are forty children at Tereora under a qualified teacher, and in aid of this establishment a subsidy of £2 10s. per head is paid by the Islands Government. The school is capably managed, and it is a rule of the mission that the boys shall raise their own vegetable food.

In Mangaia there has until lately been a school of the Tereora type under a European lady, and it will probably resume operations when the new missionary arrives to take charge of that island.

At Aitutaki the natives have built a very fine schoolhouse, and a certificated teacher is now (February, 1902) on his way from England to take up the training of the children of that island.

To sum the educational work now being done by the London Mission Society: 1,575 children are being taught to read and write Maori, 250 are receiving an elementary English education, and forty are receiving a Fifth Standard education. To the above must be added the good work done by the Sisters of St. Joseph, a Roman Catholic institution of French and Irish ladies, who have established themselves in Rarotonga, and have perhaps fifty pupils, drawn from all the denominations and nationalities to be found in the South Seas.

FUTURE TRADE PROSPECTS.

Oranges and bananas have heretofore been the chief exports; but for some years past have barely cleared expenses during the months of May, June, July, and August, though there have occasionally been fair returns for the remaining four months of the orange season. Not only is there no improvement, but the trade is slowly and surely becoming less remunerative, owing to the competition of Tahiti, Tonga, Fiji, Samoa, and New South Wales, and will shortly reach the point at which export must cease. The

Tahiti orange competes with that of Rarotonga on equal terms, although prohibitive duties are imposed at Tahiti on all goods or produce from places outside the French sphere of influence. So also the oranges of New South Wales are admitted free to New Zealand, though the coffee and limejuice from the islands is prohibited in Australia by the Federal tariff. That the islands could, if necessary, supply all New Zealand with bananas seems quite certain, and during the past twelve months hundreds of acres have been planted with this object in view; but the competition of Fiji and the expenses of shipping have put an end to any hope of expansion of this export.

As regards coffee, there is no market in New Zealand, for since the duty on that article was removed the colony has been flooded with an inferior bean from Costa Rica that can be sold more cheaply. Hence only the market of Tahiti is open, and there the duty is approximately 31 per cent. of the selling-value. Under these circumstances dependence can only be placed on copra, and even this industry is not capable of immediate expansion. The planting of the cocoanut-palm has been neglected for many years, and eight years more must elapse before any benefit can be derived from the trees lately planted.

Throughout the Eastern Pacific it will be noticed that all the cocoanut-palms are from sixty to eighty years' growth. Young trees may be seen of from two to five years, but half-grown trees seldom, if ever. The result of this, in the event of a real hurricane, will be that all of the old and partially worn-out trees will be uprooted, and many of the islands will have no export worth mentioning for the ensuing ten years.

The following statement will show the present and estimated possible yield of copra and the yield of pearl-shell for each island:—

	Copra.		Pearl-shell.
	Present Production. Tons.	Estimated Possible Production. Tons.	Present Production. Tons.
Rarotonga	150	2,000	..
Mangaia	150	500	..
Atiu	125	1,800	..
Mauke	160	350	..
Mitiaro	40	80	..
Takutea	10	100	..
Aitutaki	350	450	..
Manuae	60	400	..
Niue	500	3,500	..
Palmerston	100	180	50
Penrhyn	15	100	70
Suwarrow	25	100	..
Manahiki	100	200	10
Rakahanga	100	200	..
Pukapuka	100	200	..

The Chili Dollar.

With reference to this unsatisfactory coinage, it is reported that the natives of the group have refused to accept the dollar in pay-

Y.B.

The late King's Tomb, Rarotonga.

ment for island produce. The result of this action has been most satisfactory, for both Mangaia and Aitutaki have banished the Chili dollar and have replaced it with British coin. In Rarotonga, which is the trade centre of the Cook Islands, it has not yet been abolished, but most of the business is now transacted with British money. The trade of Penrhyn, Manahiki, and Rakahanga is still in the hands of Tahiti firms, with whom the Chili dollar is the only medium of exchange. The dollar is at present worth about 1s. 9d. in English money.

THE LAWS OF THE COOK ISLANDS.

[From a paper by E. BLAINE, Registrar of the High Court, Rarotonga.]

THE following are shortly the provisions of "The Cook and Other Islands Government Act, 1901," which now regulates the laws in force and hereafter to be made within the Cook and other Islands included in the Colony of New Zealand by virtue of the Order in Council of the 13th May, 1901:—

Section 1 gives the title of the Act, which shall be deemed to have come into operation on the 11th June, 1901.

Section 2 enacts, as before stated, that, subject to the provisions of the Act, local laws and usages are to continue until other provision is made. Power is given to the Governor in Council to direct that any of the laws in force in the said Islands may be modified or repealed.

Section 3 allows the Governor, by Order in Council, to direct that any of the laws in force in New Zealand other than the laws relating to the sale of alcoholic liquors shall have operation in the said Islands.

Section 4 provides that the Courts of Justice in the said Islands, and the Judges and officers thereof, shall continue until other provision is made, and the jurisdiction of the High Court is extended to all the Islands. Appeals from the decisions of the High Court are allowed to the Supreme Court of New Zealand, and thence to the Court of Appeal, subject to regulations.

Section 5 deals with the "Resident Commissioner," who is to administer the Government in the said Islands. His powers and duties are to be determined by the Governor by Order in Council, and, subject to such Order in Council, the Resident Commissioner is to have and exercise all powers and duties as were possessed by the late British Resident. The Governor may also appoint other officers for any or all of the said Islands.

Section 6 gives power to the Governor, by Order in Council, to establish a tribunal, or appoint an officer, or officers, to ascertain and determine the title to land within the said Islands, distinguishing titles acquired by Native customs and usage from titles otherwise lawfully acquired. Provision may be made for the issue of instruments of title.

Section 7 states that the Federal Parliament and the Native Councils existing at the commencement of the Act may continue, but shall thereafter be called the "Federal Council" and "Island Councils" respectively. Enactments made by them are to be called "Federal Ordinances" and "local Ordinances."

Section 8 defines the powers of the Councils as follows: The Federal Council shall have power to make Federal Ordinances for the government of all the Islands. Each of the Island Councils shall have power to make local Ordinances for the government of the inhabitants within its jurisdiction. It is provided that such Federal and local Ordinances shall be transmitted by the Resident Commissioner to the Governor, and shall have no force or effect until assented to in the name of His Majesty.

Section 9 states that all Federal and local Ordinances assented to by the Governor shall be laid on the table of both Houses of Parliament within ten days of the meeting of Parliament.

Section 10 deals with duties of Customs and makes the New Zealand tariff applicable to the Islands. A duty not exceeding 10 per cent. *ad valorem* is imposed on all free goods under the New Zealand tariff imported into the said Islands from places other than New Zealand, as the Governor may by Order in Council determine. No drawback is to be paid in New Zealand on goods shipped to the Islands. Goods the produce or manufacture of New Zealand, or on which duty has already been paid in New Zealand, are to be admitted free to the said Islands, and, similarly, all goods the produce or manufacture of the said Islands are to be admitted free to New Zealand. "The Customs Laws Consolidation Act, 1882," and all other laws relating to Customs then in force in New Zealand are to be deemed in force in the said Islands.

Section 11 enacts that for the purposes of "The Shipping and Seamen's Act, 1877," ships trading to or going between the Islands and New Zealand shall not be deemed to be home-trade ships.

Section 12 states that for the purpose of sections 2, 3, 4, 10, and 11, the expression "New Zealand" shall be deemed not to include the said Islands.

Section 13 gives power to the Governor by warrant or order to appoint ports of entry, and to prohibit absolutely or subject to conditions the importation of certain goods.

Section 14 makes the public revenues of the Islands available for defraying the public expenditure, and gives the Governor power to make regulations as to same.

Section 15 allows the Governor by Proclamation to set aside Crown lands in the Islands for reserves for the purpose of Imperial or colonial naval or military defence, or any other specified public purpose, and states special provisions as to reserves for Imperial naval and military defence. Power is given to revoke Proclamations. All reserves other than those for Imperial naval or military purposes are to be held and administered by such persons and in such manner as may be prescribed.

Section 16 states that the Act shall only remain in force until ten days after the expiration of the then next session of Parliament unless further extended. [It is proposed to repeal this section under the provisions of a Bill now before the House of Representatives (8th July, 1902), which provides for the Act continuing in force.]

It will thus be seen that the power of enacting new legislation is, as far as general matters are concerned, vested in the Federal Council, and as to local matters, in the Island Councils, but in every case the Ordinances have to receive the assent of the Governor on behalf of the King before the same become law. When an Ordinance has been passed by the Council it is forwarded by the Resident Commissioner to the Governor, who takes the opinion of the Solicitor-General of New Zealand on the matter. If the Solicitor-General is satisfied, he certifies that in his opinion the Ordinance is within the powers of the Council that passed it; further, that it contains nothing that is repugnant to the law of England, or which, if it were a Bill passed by both Houses of the General Assembly of New Zealand, would require that the Governor should withhold his assent therefrom. On such certificate being given the Governor is advised to give the Royal assent to such Ordinance.

The laws are enforced through the High Court, which has jurisdiction throughout the whole of the Islands, and, in the Cook Group, through the Arikis' Courts. The Arikis' Courts are composed of Native Judges, with the exception of the Arikis' Court at Aitutaki, where no Court is legally constituted unless the European Magistrate is present. The Arikis' Courts deal with all minor offences, but the Resident European Magistrate at Aitutaki has power to hear and determine all civil cases where the matter in issue does not exceed £50 in value. Appeals are allowed from the Arikis' Courts to the High Court. The High Court has exclusive jurisdiction in all cases of murder or of assault with intent to commit murder, and in all cases of manslaughter; in all criminal charges against foreign residents; and in all cases between foreign residents,

or between foreign residents and Maoris in which the plaintiff may, with the consent of the Chief Judge, begin an action in the Court, or may with the same consent seek redress for any wrong alleged to have been done by any local Government in any island. The Chief Judge has power to send any case of a criminal charge against a foreign resident for trial before a Court constituted under the provisions of the Pacific Order in Council. The headquarters of the High Court are at Rarotonga, where it sits once a week, but visits are periodically made to the other islands within its jurisdiction.

The Acts passed by the Federal Parliament prior to annexation and now in force are as follows:—

The Constitution Act, 1891.
Provisional Powers Act, 1891.
Provisional Powers Amendment Act, 1892.
Registration of Births, Deaths, and Marriages Act, 1892.
Unauthorised Expenditure Act, 1892.
Constitution Amendment Act, 1892.
Special Subsidies Act, 1892.
The Federal Flag Act, 1893.
Import Duty Amendment Act, 1893.
Certain Divorces Validation Act, 1893.
Runaway Offenders Act, 1893.
Ships' Lights Act, 1893.
Registration Amendment Act, 1893.
British Currency Act, 1894.
Passengers Act, 1894.
Government Debtors Act, 1894.
Declaration as to Maori Land Tenure.
Native Land Dealings Registration Act, 1895.
Schools Licensing Act, 1895.
Immigrants Act, 1896.
Sick Seamen's Act, 1896.
Compiling Federal Laws Act, 1896.
Murder and Murderous Assault Act, 1896.
Hospital Board Act, 1896.
Government Buildings Act, 1898.
Medical Officers Act, 1898.
Import Duties Act, 1898.
Public Health and Quarantine Act, 1898.
Traders' Licenses Act, 1898.
High Court Act, 1898.
The Statute of Rarotonga, 1899.
The Statute of Mangaia, 1899.
The Statute of Atiu, Mitiaro, and Mauke, 1899.
The Statute of Aitutaki, 1899.
The Public Works Rating Act, 1899.
The Au Empowering Act, 1899.
The Marriage and Divorce Act, 1899.
The Land Act, 1899.
Import Duties Amendment Act, 1899.
The Mauke Arms Act, 1899.
The Offenders',Punishment Act, 1899.
Christmas Day Act, 1899.
The Constitution Act Amendment Act, 1899.
The Island Statutes Amendment Act, 1900.
Labourers Emigration Restriction Act, 1900.
Import Duties Amendment Act, 1900.
Private Debts Act, 1900.
The Asiatics Immigration Restriction Act, 1900.
Medical Officers Inquiry Act, 1900.
Order in Council, 18th May, 1901.

NIUE ISLAND: AN OUTLYING PART OF THE COLONY.

[By S. Percy Smith.]

Included within the limits of the Proclamation issued on the 11th June, 1901, is the Island of Niue, which is situated in latitude S. 19° 10′, longitude 169° 17′. The Proclamation above referred to included many islands within the extended boundaries of the Colony of New Zealand, of which Niue is probably a little the largest.

The island is about seventeen miles long, north and south, with a mean breadth, east and west, of about ten miles. It belongs to that class of island termed "an elevated coral island," and it has a fringing reef of coral which extends all round it, but which does not, as in so many islands, extend far from the shore. Hence there are no harbours, properly so called, though there are two anchorages, which are available so long as the usual trade wind blows, but neither of which are at all safe in westerly winds. These two places are Alofi and Avatele, both situated on the western shore. Alofi is probably the most sheltered anchorage of the two, and being, moreover, the most central of any of the villages, and from which roads radiate in several directions, it has been selected by the Resident Agent of the Government as the capital, and the place where the Residency is to be built. It has also become the port of entry for the island—in fact, become the seat of government.

Alofi is a pleasant village, extending north and south for about a mile, everywhere sheltered by thick groves of cocoanut palms, amongst which the gleaming white houses of the people peep out here and there. It is here also the mission-house is situated, and where the Rev. F. E. Lawes resides and directs the teaching of the many young people of Niue that come from other parts of the island for the purpose of a higher education, whilst there are also schools in each native village, presided over by the teachers, who are also the local preachers.

The island, as a whole, is wanting in the picturesque beauty common to the volcanic islands, for, when once on the central terrace or plateau, there is no elevation more than, say, 50 ft. above the general level. It is quite clear that the island has been elevated from the deep by several efforts of the subterranean forces; but there are two very distinct terraces, which are much more prominent than the others. The lowest of these is about 90 ft. above sea-level, whilst the other, or central plateau, averages about 220 ft. above the same level. This lower terrace, and extending all along the edge of the upper one, is extremely rocky; so much so that there is little or no soil visible to the eye, and yet the decomposition of the coral rock allows of a very luxuriant vegetation. The lower terrace is almost everywhere covered with cocoanut palms, which sometimes extend in scattered groups right across the island. It is possible that half of the island carries cocoanuts. The rest of the surface is covered with trees, or with scrub, for there is no open country, properly so called. Some of the old untouched forests are beautiful, and contain trees that attain a height of from 100 ft. to 180 ft., many of them valuable for timber purposes.

The reef averages about 70 yards in width, and outside that the water deepens very rapidly. In-shore the coast is bold, and broken up into numerous caves and precipitous rocks, that in places have a peculiar beauty of their own.

The total population of the island was in 1900 4,576, which figures, however, include over 400 young men who are absent in Tonga, Samoa, and Malden Island, to which places they go as labourers. They live in eleven villages, situated a few miles apart, with a few people scattered here and there between them, who reside near their cultivations. All these villages are situated not very far from the sea, and have fairly good communications with one another, except for three or four places where it is necessary to ascend the lower terrace to the plateau. But these places present no difficulties to an engineer, and it is believed that the time is not far distant when it will be possible to drive all round the island along a good road. The general direction of the roads is such that they lie nearly straight between the villages.

The villages bear a strong family likeness. There is always the solidly built stone or lath-and-plaster church, the large school-house, and the teacher's residence; whilst around are the white lath-and-plaster houses of the natives, or the somewhat larger homes of the white people who live on the island. There are, however, few white people living there—about seventeen or eighteen —all, outside the mission, engaged in trade with the Natives.

The natives themselves form a branch of the great Polynesian race, and are in appearance very like Maoris. But there can be traced in them a slight strain of Melanesian blood. This is accentuated also in their language, which, whilst strictly a dialect of the Polynesian language, contains some grammatical forms and words that are, no doubt, Melanesian in their origin. They are a hard-working people, kindly and hospitable, with pleasant manners.

The people do not seem to have any very precise account of their origin, or as to where they came from originally. In this they resemble the Samoans, and may be accounted for in the same manner—viz., that they form part of the earlier migrations into the Pacific, and have been here so long that the traditions of their arrival have become obscured. They made voyages formerly to Samoa to obtain stone for their axes, and have several times been invaded by those redoubtable sea-rovers, the Tongans.

The exports from the island are not large, and consist principally of copra—of which about 500 tons is annually exported to Tonga and Sydney—hats, and formerly arrowroot and cotton. Nor can they be increased to any unlimited extent, for cultivation according to European ideas is utterly out of the question, on account of the rocky nature of the surface. But the central plateau, where there is often a soil of brown colour, might be made to grow more cocoa-nuts, besides some other things. The cocoa-palm grows fairly well, and it is probable the vanilla might succeed if properly tried.

To any one accustomed to the fine running streams of fresh water in the volcanic islands, their absence in Niue is striking, for a stream is unknown. All the water for daily use is obtained either from deep caverns or from the roofs of the houses, and it is sometimes slightly brackish in taste.

Being within the tropics, the climate is naturally hot in the summer months, but at other times is pleasant, the somewhat cool trade wind from the east or south-east tending to modify the warmth.

The Government Resident Agent is Mr. C. F. Maxwell. Justice is administered by five Native Assessors, appointed by the Council, with appeal to the Resident Agent. Lieut.-Colonel Gudgeon, C.M.G., is the Commissioner of this, as well as all the other islands included in the annexation of 11th June, 1901. He resides at Rarotonga, some six hundred miles to the east, but pays occasional visits to Niue.

Communication is infrequent. The schooner "Ysabel" makes a trip from Tonga about once each three months, and the mission vessel, "John Williams," visits the place once a year. One of the Pacific Islands Trading Company's steamers also calls about once a year.

Although the island is now a part of New Zealand, and subject to British rule, it is not a place to emigrate to, for white people would find nothing to do outside of trading in copra, and it would seem that there is no further opening in that direction.

THE NEOLITHIC MAORI: HIS RELIGION AND MYTHOLOGY.

[By Elsdon Best.]

In treating of Maori religion it is necessary to also speak of their mythology, inasmuch as it is difficult to draw any dividing-line between them. In like manner the practice of magic is mixed up with religion; many of the ancient rites performed by the priests in connection with war, sickness, and other matters, must be placed under both headings. It is also necessary to be careful in regard to the dividing-line between the ancient Maori mythology and their historical traditions.

Maori religion was an anthropomorphic polytheism. Their *atua* (gods or demons) were personifications of the elements, the offspring of primal cosmic forces, deified ancestors, &c. Lesser tribal gods were often developed from the fœtus of still-born children; these were especially malignant, and were hence utilised as war gods. Love and mercy were no attributes of the Maori god: they were ever beings to be feared, and placated by means of offerings of food, human sacrifices, &c.

Albeit an anthropomorphous being to the Native mind, yet the *atua* appear to be abstract conceptions. It was, and is, generally understood that the *aria*, or form of incarnation, of a god was not really the god itself, which latter is invisible; also, the position of the human medium of a god was thoroughly understood by the people. He was not the permanent abode of his special *atua*, but was entered by that spirit on certain occasions. The forms of incarnation of the gods are varied in nature, and include stars, comets, or meteors, a red glow in the heavens, also lizards, birds, and so forth.

Invocations were addressed to their gods, but they were not such direct supplications as are our prayers, nor do they show any trace of worship of the *atua*; they were semi-mystic applications for assistance from demons who were both powerful and malignant.

It may almost be said that Maori religion consisted entirely of ancestor worship, inasmuch as the Maori traces his descent from almost everything on, above, and under the earth. Invocations, in connection with cultivation, were addressed to certain stars; but those stars are ancestors of man, or, at least, both are descended from a primal pair, the sky parent and the earth mother.

Many chiefs, noted for courage, skill, prestige, &c., became *atua* after death; but then, owing to the old Maori belief in the semi-divine nature of man, such ancestors were half gods while in this life, hence the completing of the process after death was but natural.

There are, I believe, traces in the old Maori myths and traditions, as also in certain of their customs, of an ancient form of phallic worship. Sex would appear to have been introduced into every department of knowledge in the most singular manner.

In studying Maori religion and mythology nothing is sooner noticed than the universal personification of natural forces and phenomena which obtained. This form of animism does not appear to have degenerated into fetishism among the Maori. The sky, earth, heavenly bodies, water, fire, wind, thunder, rainbow, &c., were all personified by the ancestors of the Maori. In the same manner, in Maori folk-lore we find natural objects, mountains, rivers, &c., endowed with the faculties of speech or locomotion. It is, however, by no means safe to assume that the Maori mind could detect no difference between water, fire, the sky, &c., and the personifications of such; between the actual, immovable mountain and the mobile mountain of his folk-tales. He would appear to have looked upon such personifications as we do upon our personified forms of mercy, charity, &c., and others, such as Britannia. Peace, the fierce anger of war, &c., had their personifications in Maoridom. The Native mind would appear to have grasped such personifications better than the principles which they represented, and apparently it was from this universal vivifying of inanimate matter, &c., that the Polynesian mythology grew.

A certain form of nature worship is noted also. When a person

was struck by lightning, it was the act of Tupai, a god of thunder and lightning, who thus punished the infringement of some law of *tapu*. Haere, Kahukura, and Uenuku are all rainbow gods, the latter a most powerful war god. Again, the various natural objects —mountains, trees, stones, lakes, which the natives are pleased to term "*tipua*"—have been endowed with human faculties and emotions. They possess a certain amount of supernatural power, and will punish any rash being who approaches them without performing the proper rite. The custom of *uruuru-whenua* is a placating of the spirits of the land over which the traveller is passing.

Most powerful of all institutions was that of *tapu*. This strange system may be termed the laws of Maoriland: its shadow fell upon all things. Were the laws of *tapu* disregarded by any hapless person he was afflicted by the gods, and if he wished to retain life he must hie him to the priest, who alone might save him. Offences, however, against the minor forms of *tapu* were not punished so severely. For instance, that form of *tapu* which we should term "uncleanness" applied to the sleeping-places of women. Should a seer recline on such, he would be afflicted by the gods in this way: he would be deprived of his power of second sight—he would no longer see the signs and warnings of the gods. To recover his powers in that line he must proceed to conciliate the gods, for prophecy and second sight were most important items among the powers of the priesthood. Priests were supposed to be entered by their god when giving oracular utterances, and great faith was placed in such manifestations. Probably the priest would produce, or cause, a form of hallucination by means of much introspective brooding over a subject. The primal cause of such would be extrinsic.

The Maori belief in regard to the spirit of man is one which is widespread. The *wairua* (spirit) much resembles the *ua* of ancient Egyptian belief, but unlike the latter it leaves the body at death and descends to Hades, the realm of darkness. It appears, however, to possess the power of returning to this world, the principal object of such appearing to be the frightening of the living.

They also believe in another subtle quality or essence which pervades man. It is a vital principle, inasmuch as if it leaves the body death ensues. In one aspect it might be termed the mental or intellectual principle, and is allied to *mana* (prestige, power). It is a most difficult quality to describe. Should this *hau* of man be taken by means of magic arts the person will die—he cannot survive the loss of his *hau*.

Land was also imbued with this singular quality. The *hau* of a forest is carefully protected by means of a kind of talisman termed a *mauri*, which is concealed so that it may not be found by an enemy, who would thus be able to take or destroy the *hau* of the forest by means of magic rites, the consequence of which would be that the forest would lose its vitality or productiveness, and the birds would desert it. This *mauri* was quite a sacred affair, as is the

mauri of man, and if polluted in any way the result was most grievous.

The education of young men for the priesthood, by the elder priests, was conducted under strict rules of *tapu*. When the young priest had completed his course of learning he was required to exercise his acquired powers. There were several ways in which this might be done. One of these was for him to cause a stone to be fractured by the power of his magic charms or incantations. Another was to slay a person, also by means of such spells. Sometimes he was told to slay a near relative in this manner, his own father sometimes being selected. If his priestly tutor was an old man, he would perhaps instruct his pupil to turn his dread power against himself—*i.e.*, the tutor. After this rite was successfully carried out the incantations of the young priest would ever be effective, or so long as he conducted himself properly.

PART IV.—DESCRIPTIONS OF LAND DISTRICTS.

THE AUCKLAND LAND DISTRICT.

G. MUELLER, Chief Surveyor.

Introductory.

THE Auckland Land District covers about four and a half degrees of latitude, extending from 34° 30′ to 39° S., its greatest length being about 365 miles, from the North Cape to the 39th parallel, south of Lake Taupo, while its greatest width is about 180 miles. In the peninsula north of Auckland, indented as it is on either side by harbours and arms of the sea, and with a mean width between the Pacific Ocean and Tasman Sea of little over forty miles, the range of temperature is remarkably small. The thermometer seldom registers above 80° in the shade in the middle of summer, whilst the heat is always tempered by a cool breeze, bringing the mean summer temperature to under 70° in the shade. The frosts are hardly worth mentioning, as the minimum register is seldom below 40°; but south of Auckland sharp white frosts occur very often, more especially beyond 38° of latitude, and snow lies upon the summits of some of the highest hills or mountains in winter.

Physical Features.

This land district may be said to have no real mountains, as the most prominent peaks of the several scattered ranges or hills seldom exceed 3,000 ft. in height above the sea-level, an altitude just enough—south of 38°—to clothe the last 1,000 ft. with snow in the depth of winter. North of Hokianga and the Bay of Islands there is one well-defined range of hills rising to a height of 2,463 ft.; whilst south of these places, and extending to the Wairoa River on one side and the Whangarei Harbour upon the other, the country is all more or less broken into ranges from 1,000 ft. to 2,000 ft. in height, with valleys between. The next really well developed main range lies within the Coromandel and Thames Peninsula. With a length of over 150 miles, it has an average height of over 2,800 ft., commencing with Moehau, or Cape Colville, 2,935 ft.; next, Te Aroha, a peak of 3,176 ft.; and ending at Weraiti with a height of 2,527 ft. There are two other well-defined ranges—namely, Tawairoa and Hauturu—lying between the West Coast and the Waipa basin, with their highest peak at Pirongia, which rises to 3,156 ft., and is often snow-capped. There are other ranges forming the watershed between the basins of the Waikato and Waipa Rivers, and dividing both from the streams running into the western side of Lake Taupo. Their highest peak is Pureora, rising to 3,793 ft. The eastern side of the land district is occupied by a very broken, forest-clad country, known as the Urewera country, the average height of which is about 2,500 ft. It is practically unexplored, and, being still in the hands of the Natives, is not as yet available for settlement. To the east of Lake Taupo lie the Kaimanawa Ranges, of about 4,500 ft., and generally open on the ridges, with valleys clothed in beech forests. Nearly the whole of the Auckland Land District is indented on both coasts with harbours and arms of the sea, forming a cheap and easy means of access. Of rivers, properly so called, there are only two of any great length—namely, the Wairoa and Waikato. The first empties itself into the Kaipara Harbour, a large arm, or rather succession of arms, of the sea, giving hundreds of miles of inland water-carriage to all parts of the Counties of Hobson, Otamatea, Rodney, and Waitemata. This river is navigable from its mouth to its junction with its

tributaries Wairua and Mangakahia, a distance of ninety-one miles from the sea, and for forty miles it is navigable for ships of large burden. The River Waikato has a course of 200 miles, measured from its source in the Ruapehu Mountain through Lake Taupo to the sea on the West Coast. It is navigable for river-steamers for seventy-five miles from its mouth, and its tributary, the Waipa, for twenty miles from its confluence with the Waikato at Ngaruawahia. Another river —the Thames, or Waihou—though of no great length, affords a valuable means of inland water-carriage, and is navigable for small steamers for twenty-five miles. Generally speaking, every part of the district has an abundant water-supply, now and then lessened for a short time at the end of a very dry summer.

Plains.

Of plains proper, this district has only the stretch of country called Kaingaroa, extending from the eastern side of Lake Taupo towards the Bay of Plenty, all more or less of a pumice formation; the valley of the Thames, and the delta between the Thames and Piako Rivers, which is generally level, the quality of the soil varying very much in different parts; and the Central Waikato basin, already thickly settled. Here and there in the North there are level plateaux of volcanic soil, more or less densely wooded, and along the main rivers there are stretches of level country, but there are no large plains of alluvial soil such as the Middle Island can show.

Lakes.

Of these, which add so much to the scenery of a country, this district possesses a fair share, there being eight principal lakes, with some twenty or more smaller ones. To the north of Auckland, in the Bay of Islands district, there is only one lake of any size, called Omapere, three miles by two miles, an old crater. In the Waikato are Lakes Waikare and Whangape, the first six miles and a half long by three miles across, and the second five miles by one mile. These lakes are generally covered with numerous wild swans and ducks, and, being both connected with the Waikato River by navigable creeks, form a convenient waterway for transport of goods to settlers living around their shores. All the remaining lakes of large size are within the watershed of the Thermal-springs District, and are mostly from seven to eight miles long, and from three to six miles wide, except Taupo Moana, the queen of the North Island lakes, which is twenty-five miles long and eighteen miles broad, with a depth of 500 ft. The scenery round its western shore is of the most romantic kind.

Forests.

The greater part of the Auckland Land District has been covered in the past with dense forests, which are now fast disappearing under the axe of the settler and being transformed into rich pasture-land. The only really good Crown lands fit for settlement in the North are still all covered with forest, and must be cleared and sown before any returns can follow. The area of forest land in the Auckland District at the present time is about 1,800,000 acres north of Auckland, and 3,420,000 acres south of it. The forests contain a mixture of trees of all kinds, from the giant kauri to scrubby tea-tree or manuka, but all the bush is useful for building, fencing, and household purposes, or at any rate may be converted into charcoal for sale. Of the giant kauri (the most valuable tree in New Zealand) great quantities, worth as much as £1,000,000 per annum, are being yearly cut, and exported or used for home consumption. To give some idea of the size of these trees, and the amount of timber contained in them, it is estimated that upon the Crown land in the Auckland Land District there are still remaining 1,185,000,000 ft., of a value, as the timber stands, of over a million sterling.

Soils.

With respect to the soils of Auckland, nowhere in New Zealand within such short distances is there such a diversity in the quality—a distance of half a mile often makes all the difference between rich alluvial and barren pipeclay. To the north of the Bay of Islands and Hokianga the lands are chiefly clay and sand-

stone, with here and there a volcanic area intervening. In and about the valley of the Mangonuiowae River, in the Hokianga County, there is some of the richest alluvial soil in the district; and, taking the whole Crown land remaining to the north of a line between the Hokianga and Bay of Islands Harbours, the really available good land fit for settlement would be about 40,000 acres. There are large areas outside of this which will carry good grass and feed one or two sheep to the acre, after clearing and laying down in grass; and there is also land highly suitable for fruit-growing. South of Hokianga, and between that place and the Wairoa River, the soil is, generally speaking, very good, being both volcanic and alluvial. Here the Crown has probably 150,000 acres of such land fit for settlement. Immediately south of the Bay of Islands, and extending thence to Whangarei, the soil is, for the most part, clay lying upon sandstone or marl, with alluvial flats in the bottoms of the valleys; but these are, as a rule, very narrow. Within the Puhipuhi State Forest there is an area, say, of 16,000 acres, more or less, of volcanic soil. Approaching Whangarei, at Hikurangi, the limestone crops out, overlying coal-deposits, and round Whangarei itself the soil becomes a rich volcanic, in a high state of cultivation. South of Whangarei Harbour, and from thence to Auckland, the Crown lands generally are of a broken character, with soil varying from alluvial swamps—as in the case of the Tokatoka Swamp of 16,000 acres—to fine limestone areas round Maungaturoto, the sandstone and clay lands of Rodney County, and the poorer clay lands lying north of the City of Auckland, which have, however, proved eminently suitable for fruit-growing.

For about 200 miles south of Auckland the land (with the exception of the Cape Colville Ranges) is, generally speaking, far less broken, and gradually opens out into large tracts of level country in the Waikato and Waipa basins. Immediately south of Auckland the soil is rich volcanic until it is gradually superseded by the prevailing clays; the greater portion of Manukau County, for thirty miles south of Auckland, may be classed as pastoral, and is under occupation as such. The Crown areas available for settlement—say, 16,000 acres—are chiefly in the Otau Parish, varying from volcanic clay to ordinary clay land, forest-clad, and well adapted for pastoral purposes. In the Counties of Waikato, Raglan, Waipa, Piako, West Taupo, and Kawhia, there is a still greater diversity of soils; Raglan County contains large areas of good limestone country, broken, but with rich black soil, and carrying most luxuriant grass. The lower Waikato country consists of clay soil and extensive swamps, almost undrainable, but at a distance of eighty miles from Auckland is found a flat and undulating country, lying partly within the Waikato and Waipa basins, and partly within the valleys of the Piako and Waihou Rivers, formed mainly of alluvial deposits of rhyolite sands brought down from the volcanic districts. In the Kawhia County there are some 300,000 acres of excellent limestone land, a large portion of which is heavily timbered, with numerous warm valleys. Most of this land has now been acquired by the Government from the Native owners, and is being opened for settlement. Beyond this there is a large stretch of country consisting alternately of open valleys and forest-clad hills, a fair proportion of which is good land, both pastoral and agricultural. The County of Coromandel, with portions of Thames and Ohinemuri Counties, is chiefly devoted to the mining industry. The soil is nearly all clay, the land very broken, but suitable for pastoral purposes if cleared of the dense forest that now covers it. The western portion, however, of the Thames and Ohinemuri Counties contain large areas of alluvial and swamp lands, now in the hands of the Crown, but, through want of drainage, not yet available for settlement.

In the County of Tauranga, the clay lands extend from Te Aroha Mountain to Katikati entrance, changing, near Tauranga, to sandstone and black pumice soil of rich character, which improves towards Te Puke and Maketu, where the land is all good, and more or less volcanic. In Whakatane and Opotiki Counties there are very extensive swamps, of which large portions are drainable, and back from the coast seven miles or so are large areas of Crown lands, broken and forest-covered, opened ready for settlement. The soil is chiefly clay or light loam, with alluvial flats in the valleys, and all well watered. This kind of country extends to the boundary of the land district. The coastal lands are nearly all alluvial flats in a high state of cultivation, and the settlers mostly well-to-do.

Review of Soils: Uses and Returns.

Briefly to set forth the capabilities of the Crown lands in the district, it will suffice to say that north of the Bay of Islands and Hokianga the land is suitable chiefly for two classes of persons—the gum-digger, and the fruit-grower or small farmer. The former has the range over large areas of Crown lands upon paying a small fee, and his earnings average from 5s. to 10s. a day. As for the latter, in and around Hokianga, with its 250 miles of water-frontage, almost anything can be grown, from the tropical banana to the more prosaic potato, whilst oranges and lemons flourish side by side with all kinds of apples, pears, and plums. Wheat does fairly well, and maize gives a return of 50 to 60 bushels an acre. Sheep also thrive; and most of the lands, when properly grassed with artificial grasses, will carry two or three sheep to an acre, but ordinary rough-grassed lands only one and a half to two sheep per acre. The Messrs. Williams, at Pakaraka, are feeding four sheep to the acre upon land sown with furze. The clearing of forest lands, ring-fencing and grassing them, will cost about £3 to £3 10s. per acre. The same remarks apply to the Bay of Islands and Whangarei, and to the country as far south as Auckland. Round about Whangarei district, and under similar conditions of culture, the average return for good agricultural or pastoral lands would be fully 12s. an acre per annum. South of Auckland, throughout the Waikato, Piako, Waipa, and Raglan Counties, and thence south to the district boundaries, the land is both agricultural and pastoral. All the cereals do well, wheat averaging 27 to 30 and up to 40 bushels per acre, and oats 26 bushels per acre. Potatoes average from 5 to 7 tons per acre. Dairy-farming is carried on, yielding (upon well-cultivated farms) a net profit of 15s. to 20s. an acre per annum; whilst sheep-farming yields a profit of from 5s. to 7s. 6d. a sheep per annum on very large estates; allowing for greater losses from disease, &c., the average return would still be 4s. per sheep. The cost of clearing fern and scrub is generally from 7s. to 10s. an acre, and laying down fern land by surface-sowing and harrowing, about 17s. an acre.

The seaward counties of Tauranga, Whakatane, and Opotiki are both agricultural and pastoral, growing wheat and maize alike to great perfection. In fact, these counties, upon their alluvial shores and uplands, grow the greater portion of the maize produced in the district, and from the ports of Whakatane and Opotiki in one year some 34,000 sacks have been exported. In these counties the average yield of wheat is from 22 to 25 bushels per acre, oats about 29 bushels per acre, and maize 45 to 60 bushels per acre. It is quite possible within this district to select land early in the winter, fell and burn off by the ensuing summer, sow in grass in the autumn, and put on stock within twelve months from selection.

Rainfall.

The rainfall during the year averages about 39 in., the greater portion of which, as a rule, falls between the 1st of May and 1st of November, or during the winter and spring months. Owing to the constant changes of wind, caused by the configuration of the coast-line, the shortness of the distance between the two coasts, and the influence, greater or less, of the trade-winds, it is quite common for one neighbourhood to have double the rainfall of another, even though the two be only twenty miles apart. Droughts of more than a couple of months are practically unknown, and grass is always abundant.

Winds.

One of the chief means whereby the great healthiness of the climate is maintained is the constant presence of fine breezes, blowing both summer and winter, the prevailing winds being north-east and south-west, and very seldom passing into really heavy gales. In the middle of summer, the sea-breeze during the day and the land-breeze at night are almost unvarying.

General Products and Industries.

Timber.—The vast forests of kauri and other valuable trees have given this district the foremost place for production and export of timber. There are many safe and sheltered harbours for shipping, while streams and rivers without number

form convenient highways for conveying logs to the mills or ports. Some idea of the extent of this industry may be given by quoting from the official returns made at the time of census of 1901. There were then forty-eight sawmills situated in various parts of the district, with engines of a total of some 3,100-horse power. These mills employed over 2,000 men, and produced yearly some 109,000,000 ft. of sawn timber, valued at £459,128; of timber resawn into flooring, skirting, &c., some 14,000,000 ft., valued at upwards of £79,000, not to mention posts and rails, mouldings, sashes, and doors. Besides this output, in the remoter parts of the district large quantities of timber are hand-sawn. The durable puriri is converted into railway-sleepers, for which there is a great demand, and the totara is largely sought after for telegraph-posts and wharf-piles.

Kauri-gum.—The most unique production of this portion of the colony is kauri-gum, obtained for the most part from the country north of Auckland. It is formed by the hardening of the exuded turpentine from the kauri tree, and is dug out of ground from which the forest has been burnt off. The Royal Commission appointed in 1893 elicited the fact that the procuring of the gum gave employment then to no less than 6,897 persons. Last year 7,541 tons were exported, valued at £446,114. The kauri-gum is extensively used in the manufacture of varnish, and also for glazing calico. Nearly two-thirds of the varnishes in the market are produced from this gum. The average earnings of a digger may be taken as from £1 7s. to £1 10s. per week.

Flax (*Phormium tenax*).—An industry, which has assumed large proportions, is the conversion of the broad leaves of the *Phormium tenax* into marketable flax suitable for the manufacture of rope, twine, mats, mattresses, and numerous other articles. The flax-mills are scattered over different parts of the district, as near rail or water carriage as possible, and employ a considerable number of men and boys, whilst the local rope and twine works give work to a good many more. The export from Auckland Land District of phormium for the year 1901–1902 was 2,034 tons, valued at £48,459.

Gold.—This district has in the past produced large quantities of gold, but the area over which auriferous quartz-reefs has been discovered is limited to the Counties of Coromandel, Thames, Ohinemuri, and a small portion of Piako. In 1901 the output of this neighbourhood was 46 per cent. of all the gold produced in New Zealand, the quantity (191,968 oz.) entered for duty for exportation having been valued at £695,551. From 1878 to 1892 the Thames Goldfield alone produced some 600,000 oz. Now that the area over which auriferous quartz-reefs have been discovered has increased, a much larger output may be expected in the future. The total estimated value of the gold was £728,498 for 1901–1902, against £604,018 in the previous year. All the gold won was obtained by battery amalgamation and the cyanide process. There is a large amount of English capital being expended in developing new discoveries in out-districts away from the goldfield, but it will be some time yet before these discoveries have reached their full development. At the Thames there is a School of Mines, well attended and showing good results.

Coal.—Coal is found in most parts of this district, and is being worked with more or less success at Kawakawa, Hikurangi, Kamo, and Ngunguru, to the north of Auckland; whilst in the south there are three mines at Huntly, all turning out a good household coal. The total output of all the mines in 1901 was 177,284 tons.

Fruit.—The climate of the Auckland District is well adapted for the growth of the orange, lemon, vine, and olive, as also for the fruits of England, America, and Japan. The subtropical kinds flourish about Hokianga, in the north; those of the temperate regions, in the Waikato and neighbourhood. Now that the problem of how to land fruit in good condition in the London market has been solved, orchard planting is rapidly progressing, and it has been found that the culture of the hard varieties of the apple will repay export to England. Of late years a demand has set in for the poor clay land that used to contain gum, as it is admirably suited for fruit-growing. Orchards are now planted in neighbourhoods where the soil has lain idle for years, for it has been proved that apples grown on this poor soil keep longer than those grown on richer land. What can be done by cultivation and care on

poor lands is evidenced at the Waerenga Government Experimental Plantation in the Waikato, where the two orchards of fruit trees and vines show most luxuriant growth. More attention is being just now paid to stone fruits, for which there is always a steady local market, than to apples, which have of late years been heavily handicapped by blight. The fruit industry in Auckland is yet in its infancy, and is capable of great extension. At present peaches are the only fruit canned, though there is also a good deal done in the way of drying fruits and vegetables by the process of evaporation.

Fishing.—The sea and harbours abound in fish. At least eighteen different varieties suitable for the table are caught with little labour, and settlers living near the sea-coast or any one of the many harbours and tidal rivers can always obtain enough for all necessities. At present the canning industry is confined to mullet, of which there is a large amount exported, and an equal quantity used for home consumption. The rock-oyster is found over a large area on these coasts, and large quantities are sent both to the southern ports of the colony and also to Australia.

Chief Centres and Surrounding Districts.

The City of Auckland lies on the southern shore of the Waitemata Harbour, one of the finest havens in the colony, on a narrow neck of land between the Waitemata and the Manukau. Alike from the sea and from the neighbouring hills the city and surrounding country present a charming picture. Especially fine is the view from Mount Eden, a low volcanic hill in the suburbs. Facing the town are the green hills and white houses of the North Shore, and the remarkable peak of Rangitoto; beyond lie the many islands of the Hauraki Gulf, with the blue hills of Coromandel and the Great Barrier in the far distance. Clustered near the foot of the hill, and scattered for many miles to the southward, are charming villa-like houses, with tasteful gardens and shrubberies, while to the north-west the view is closed by high wooded ranges. The city is unrivalled for its commercial position; it has communication by sea with both sides of the Island, while the Kaipara and Wairoa Rivers leading far into the northern peninsula, and to the south the Waikato and Thames Rivers leading into the heart of the Island, give it excellent natural facilities for inland communication. In March, 1901, the population of the city and suburbs amounted to 67,226 persons. The city is well supplied with gas and water, and amongst public buildings may be noticed Government House, the new Government Offices, Post and Telegraph Offices, Supreme Court, &c. There is a Free Public Library and Art Gallery, and a good Museum, containing what is probably the best Maori collection in the world. The Auckland University College is affiliated to the New Zealand University. The Victoria Arcade, the Exchange, Harbour Board Offices, hotels and clubs, as well as many commercial buildings, compare favourably with those in other parts of the colony. There are admirable recreation-grounds, including the Government Domain of about 180 acres, as well as the Botanic Garden and the Albert Park in the centre of the city. There is a tramway system extending through the suburbs. Auckland has numerous industries, including, amongst others, ship-building, sugar-refining, timber-converting, sash and door manufactories; rope and twine, pottery, brick and tile, and varnish works; printing-offices, &c.

The City of Auckland is the centre from which radiate all railways, road, and steamer routes. From it, by rail, lies the way to all Crown lands south of the Waitemata, while the Kaipara Railway connects it with the country north of Helensville. All lands to the north and along the Bay of Plenty are reached from its wharves by the Northern Company's steamers. The chief centres to the north are:—

Warkworth, on the East Coast, forty miles from Auckland, with communication by coach and steamer nearly every day. It is a thriving township, with post and telegraph office, public halls, hotels, &c. It is also the site of important hydraulic-lime and cement works. A good deal of agricultural and pastoral farming is carried on in its neighbourhood.

On the West Coast an important centre is Helensville, on the Kaipara Harbour, distant thirty-six miles from Auckland, with which it is connected by rail. It has all the conveniences required by travellers in the shape of good hotels, stores, &c., and

is the starting-point of the river-steamers running to all places in the Otamatea and Hobson Counties. It is also one of the main centres for the export of balk timber.

Dargaville, on the Wairoa River, is a town of about 500 inhabitants, with all conveniences for travellers. It may be reached by rail and steamer from Auckland three times a week. Dargaville is the starting-point of the Kaihu Valley Railway, which is open for traffic for twenty miles from the town, and from the terminus of the railway all the Crown lands in the neighbourhood are reached, even so far north as Hokianga. The town is also the centre of a very large timber export. There are only two townships of any importance north of Dargaville—Port Rawene, or Hokianga, and Kohukohu, about four miles further up. Both have post and telegraph stations, and comfortable hotels, with fortnightly steam-communication from Auckland.

Whangarei, on the East Coast, is distant seventy-five miles from Auckland, with which it has steam-communication twice a week. The town is a thriving and important place, having a population of about 1,500, and is the centre of a large agricultural and pastoral country. In the neighbourhood is also a large coal-bearing and gum-producing district, while the export of oranges and lemons, which thrive magnificently on the rich volcanic soil, is on the increase. From here a coach runs weekly to Kawakawa, upon the arrival of the Northern Company's steamer, and from it, by carriage or horse, all lands can be visited within a radius of thirty to forty miles.

Kawakawa, at the head of the tidal portion of the river of the same name, is connected by a short railway-line with Opua, the calling-place of steamers from Auckland. Kawakawa possesses good inns. From it coaches run weekly to Hokianga and Whangarei. It is the centre of a coal and gum industry, and a port of lading for those products. The old town of Russell is situated further down the bay, and has a good hotel, besides having a post and telegraph office. To Whangaroa, Mangonui, Awanui, Hohora, and Parengarenga the Northern Company's steamers run every week. Whangaroa is famed for its exquisite scenery, and is the centre of a large timber and gum export trade. Mangonui is the starting-point and centre from which to visit, by carriage or horse, all the Crown lands in the Mangonui County.

South of Auckland, along the Waikato Railway, there are numerous townships of more or less importance, but no starting-point for Crown lands until Mercer is reached at a distance of forty-three miles. It is situated at the borders of what is known as the Waikato Country, upon the Waikato River, which is tidal up to this point, and the township has a post and telegraph office and other conveniences. At sixty-five miles from Auckland by rail is Huntly, also on the Waikato River, a flourishing township, with a very large output of valuable coal. It has also pottery, brick, and tile works. On the opposite side of the Waikato River large areas of Crown lands are being brought into use, and are carrying large quantities of sheep and cattle. The next town is Ngaruawahia, or Newcastle, seventy-four miles from Auckland, situated at the junction of the Waikato and Waipa Rivers, with hotels, bank, post and telegraph office. It is a centre from which portions of Crown lands in Raglan County are reached, and also from it river-steamers run north and south to the various settlements. Ngaruawahia has a flourishing creamery, a brewery, and a cooperage. At eighty-four miles from Auckland the train reaches Frankton Junction, where a line branches off to Hamilton, Te Aroha, Paeroa, Thames, and Rotorua, the main line going to Te Awamutu, ninety-nine miles from Auckland. The latter is a thriving town; but to reach available lands for future settlement the traveller passes on by rail to Otorohanga; Te Kuiti and Poro-o-te-Rau, fifteen and twenty-five miles further on respectively, are both of them places at which there are accommodation-houses, forming convenient centres for visiting the fertile undulating limestone lands in the vicinity. Hamilton is a busy, flourishing town, situated on both sides of the Waikato River, with a population of about 1,300 persons, and is the centre of a large agricultural and pastoral district. It possesses a creamery, flax-mill, brewery, and two soap-factories, besides other local industries. Cambridge, about thirteen miles by road and fifteen miles by rail from Hamilton, has a population of about 1,000, and is the

headquarters of the Farmers' Club. It is a busy, thriving township, surrounded by good farming country. Between Hamilton and Cambridge, and in the country round, there are numerous creameries, cheese and butter factories; wine and cider making is also successfully pursued, and there are several apiaries, from which large quantities of honey are produced. There are three flour-mills in the district, one at Cambridge, one at Hamilton, and the third at the terminus of one of the before-mentioned branch lines. One hundred and sixteen miles from Auckland by rail is Te Aroha, a quiet township, celebrated for its thermal springs and good hotels. Another thirteen miles brings the traveller to Paeroa, a centre of mining industry, and in another twenty-nine miles the Thames Borough is reached.

The settlements at the Thames and Coromandel are essentially mining townships. The first is situated thirty-eight miles by steamer from Auckland, on the Firth of Thames, and at the mouth of the Waihou River. It has a population of about 4,000 persons. There is daily rail and steam communication with Auckland, and a railway connecting it with Paeroa and Te Aroha. Coromandel is about thirty-five miles from Auckland, with which it has constant communication by steamer; it is another mining centre, situated at the head of a picturesque harbour. Tauranga, with a population of about 1,000, is situated on the harbour of that name in the Bay of Plenty. Coaches run thither from the Thames, and from Rotorua; it has also constant communication by steamer with Auckland, and with Matata, Whakatane, and Opotiki. From the fact of the harbour being the only one on the East Coast capable of receiving large vessels the town is bound to be of importance in the future. Tauranga has a chemical and sulphuric-acid works, and a cheese-factory.

Opotiki, the second town of importance in the Bay of Plenty, is situated about sixty-five miles by steamer or road from Tauranga. It has weekly steam communication with Auckland, and is connected with Gisborne by a bridle-track. It is the headquarters of the maize-producing district, and has rich alluvial lands, from which good returns are obtained. It is a good starting-point from which large blocks of Crown lands suitable for pastoral purposes may be reached.

The Township of Rotorua is situated on the shores of Rotorua Lake, at a distance of 172 miles from Auckland. Travellers can reach Rotorua in one day from Auckland. It is the chief township in the hot-lakes district, and has also a large area of fairly good Crown land near, adapted for pastoral purposes. Considerable quantities of sulphur are obtained from the neighbourhood.

Crown or Native Lands available for Future Settlement.

In the Mangonui County the Crown possesses 25,350 acres of fairly good forest land, tolerably easy of access.

In the Bay of Islands County there are only about 25,600 acres of available Crown land, both forest and open, but the Natives still own some 152,000 acres, chiefly forest land, except about Kaikohe, where it is open and rich volcanic land, most of it broken, but fit for settlement.

In Hokianga County there are some 140,600 acres of available Crown land, of good quality, nearly all covered with forest, and fit for immediate settlement. The Natives still own some 104,650 acres, almost all good land, and fit for settlement.

In Whangarei County there are about 40,300 acres of available Crown land, mostly broken and forest-clad. The Natives still retain some 28,850 acres of land, part of it very rich.

In the Otamatea County the Crown retains only about 12,600 acres, a good deal of this being alluvial swamp, and now well drained. The Natives still own about 20,000 acres, but not much of it is fit for settlement.

In the Rodney and Waitemata Counties about 28,700 acres of Crown lands are left, most of it fit only for pastoral or fruit-growing purposes. The Natives still own about 14,000 acres in these two counties, some of it very good land.

In the Manukau County the Crown owns some 20,300 acres of broken forest land, fit for pastoral purposes. The Natives still own about 15,000 acres, a portion of which is fairly good.

In the Waikato and Raglan Counties the Crown lands amount to about 55,650 acres, all fairly good land, mostly forest, and easy of access. In Raglan County the Natives still own the freehold of 150,000 acres, all good land.

In the Coromandel, Thames, and Ohinemuri Counties there are about 329,550 acres of available Crown lands, a great deal of it too broken for settlement. In the last two counties a good deal of the land is swampy, and requires draining. The Natives still own 97,200 acres, much of which is very good.

In Tauranga, Whakatane, Opotiki, and Rotorua Counties the Crown owns 394,800 acres, nearly all forest-clad, and generally broken; but in the last-named county the Natives retain a very large area, the greater part too broken or too much covered with pumice or volcanic ash to be fit for settlement.

In the Kawhia and West Taupo Counties the Crown is acquiring from the Natives large areas of very good land, all fit for settlement and easy of access. About 300,000 acres are really first-class land, and about 1,000,000 acres fairly good land, all suitable for pastoral purposes, and accessible from the Main Trunk Railway-line.

The Crown now holds about 195,900 acres in Kawhia County—50,000 acres are now being surveyed and made available for settlement—and 152,700 acres in West Taupo County.

THE TARANAKI LAND DISTRICT.

J. MACKENZIE, Chief Surveyor.

The Taranaki Land District is situated on the western side of the North Island of New Zealand, at about its widest part, and may be said to be the most compact and fertile district of the colony, for, with the exception of the upper half of Mount Egmont, and of the ranges adjoining, which absorb about 36,000 acres, the whole of the area—minus what is taken up by the rivers, streams, and lakes—is suitable for settlement, and certainly two-thirds of the district is good land. The gross area of the district is 2,430,000 acres.

Physical Features.

Of mountains, the principal one is the beautiful volcanic cone from which the district takes its name, Taranaki, otherwise called Mount Egmont, which has an altitude of 8,260 ft. This mountain is the centre of distribution for a radius of twenty miles of the volcanic formation known as the "drift," which covers the volcanic rocks below an altitude of 3,000 ft. Hummocks composed of trachyte boulders and cement crop up here and there and make excellent metal-quarries.

Beyond the volcanic formation—that is, from about Urenui on the north and Hawera on the south—the country is generally broken, and the formation is known as papa, a calcareous blue clay, capped in many places by shelly limestone.

The northern portion, between the Tongaporutu and the Mokau Rivers, contains also limestone, greensands, and coal outcrops. At Panirau, a small tributary of the Mokau, about thirty miles from the sea, there is an isolated patch of volcanic agglomerate and tufas, and a similar formation is found at the north-eastern corner of the district.

Eastward of the base of Mount Egmont there are few, if any, mountains worthy of the name, although there are many ranges varying in height from 1,000 ft. to 1,500 ft. above sea-level, and, in a few instances—such as the Matemateonga and Wainria Ranges—they run up to 2,500 ft.

The principal river is the Wanganui, which bounds the district on the east between Taumaranui and Pipiriki, a distance of about ninety miles. Its average width varies from 2 to 3 chains. For nearly the whole distance it is shut in by high precipitous hills, and in many places by perpendicular walls of rock. The scenery is very grand and beautiful. There are numerous rapids, but few of them are dangerous to skilful canoeists. Steamers run regularly from Wanganui to Pipiriki, a distance of fifty-five miles.

Messrs. Hatrick and Co. have recently commenced to run their new steamer "Wai-iti" between Pipiriki and Putikituna, some twelve miles up the Tangarakau

River. From this point a road (nine miles in length) is being constructed to join the Ohura (or East) Road at a point about forty-seven miles from Stratford, and in the middle of the Whangamomona Improved-farm Settlement, the settlers in which and surrounding blocks will thus have double communication, with Wanganui on the one hand and Stratford on the other. When the road is completed through to Auckland, tourists can enjoy a trip up the Wanganui River as far as Ohura, then back, and up Tangarakau River across to Ohura Road, then on to Auckland, or back to Stratford, as they desire. The dimensions of the "Wai-iti" are 40 ft. long by 8 ft. beam, with a light draft of 9 in. and passenger capacity for forty, the amount of cargo depending on quantity of water in river from time to time. The time-table as at present arranged is: Leave Putikituna for Pipiriki and Wanganui every Tuesday morning at 10 o'clock, and every Monday leave Pipiriki for Putikituna. It is probable that during the summer this weekly service may be increased to bi-weekly, as the firm intends making an effort to secure a fair share of the tourist traffic for this route. The fares at present are: Putikituna to Pipiriki, 10s. single, 15s. return; Putikituna to Wanganui, 20s. single, 30s. return, and *vice versâ*; cargo, 50s. per ton, but this will probably be reduced as the channel of the Tangarakau is improved by snagging, &c. Of course it is understood that probably these rates may fluctuate. The principal tributaries flowing into the Wanganui on the Taranaki side are the Whangamomona, at eighty-two miles; Tangarakau, at eighty-five miles; Ohura, at 114 miles; Ongaruhe, at 143 miles respectively from the Town of Wanganui.

The next river in size is the Mokau, bounding the district on the north. It is navigable for handy steamers drawing from 7 ft. to 8 ft. of water as far as the coal-mines, about twenty miles from its mouth, and for canoes as far as Totoro, twenty-six miles further up. Several outcrops of coal are found on its banks, and, as limestone is also present, the river is likely to become an important waterway of the district. The scenery on either side, although not on quite so grand a scale as may be seen on the Wanganui, is very beautiful.

The other large rivers are the Waitara and Patea. The former has its source about midway between the coast and the Wanganui River, in an easterly direction from Pukearuhe, between New Plymouth and the Mokau. It is about a hundred miles in length, and runs out at the Town of Waitara, some ten miles north-east from New Plymouth. There is a bar at the mouth, but steamers of 300 tons can enter safely in calm weather, and, although there are numerous rapids on its course, it is navigable for canoes for about ninety miles.

The Patea River rises in Mount Egmont, and, after traversing a tortuous course of about 110 miles, runs out at the extreme southern end of the provincial district. It has a bar-harbour, with a depth of 13 ft. to 14 ft. at spring-tides. Steamers of from 40 tons to 50 tons trade regularly to the town of Patea, which is situated a mile or so north of the mouth. The Patea is navigable for canoes for fifty miles.

Besides these rivers there are many smaller ones, and streams innumerable—in fact, no district in the world could be better watered and at the same time be so secure from disastrous floods. It is estimated that between the Mokau and the Patea there are no fewer than eighty-five named streams emptying themselves into the Tasman Sea, fully sixty of which flow from Mount Egmont.

Excepting the Ngaere Swamp, a block of open land near Eltham, 3,700 acres in extent, now partially drained and recently disposed of for settlement purposes, there are no plains, properly so called, in the district, although the stretch of very fertile country lying between the Waingongoro and Otakeho Rivers, comprising an area of about 25,000 acres, is known as the Waimate Plains. Of this area 13,500 acres have been disposed of, and the remainder, 11,500 acres, has been handed back to the Natives as a reserve.

There are no lakes worthy of the name. The largest sheet of water is Rotokare, situate about twelve miles from Eltham; it is about half a mile in length, with an average width of six chains. There are also a few small lakes inland from Waverley, at the southern end of the district.

The whole of the district, with the exception of a fringe of open country along the coast from Pukearuhe to Patea, averaging three miles in width, and containing about 250,000 acres, and some valleys at the north-eastern corner of the district,

about 150,000 acres in extent, was originally covered with heavy forest, but this is rapidly disappearing under progress of settlement and erection of sawmills to deal with such timber.

The larger timber is chiefly rata, rimu, matai, tawa, kahikatea, kohekohe, pukatea, rewarewa, hinau, with a few totaras scattered here and there. Among the smaller trees may be mentioned the kotukutuku or fuchsia, karaka, and mahoe.

As regards the timber industry, there are altogether thirty-eight sawmills, and the total quantity cut in 1901 was 16,710,000 ft., chiefly rimu (red-pine), kahikatea (white-pine), and matai (black-pine). Most of these mills work together under Association rules and prices, their output for the year being 14,000,000 superficial feet. The others work independently, and their output amounted to only 2,710,000 ft. for the same period.

An area of 72,565 acres, measuring six miles on every side from the summit of Mount Egmont, was originally set apart as a forest-reserve. To this has now been added 1,040 acres on the lower slopes of Pouakai Range, with an additional 5,500 acres on the Patua Range, making a total of about 79,000 acres, which has now by Act of Parliament been set apart as the "Egmont National Park," the internal affairs of which are administered by a partly elected and partly nominated Board of ten members. "At about three miles within the reserve the forest begins to get stunted; and at four and a half miles it gives place to low wiry scrub, which ceases at five miles, or an elevation of about 4,000 ft. At 5,000 ft. the moss ends; beyond this point to the summit the mountain is composed of loose scoria and lava.

A comfortable house, known as the Egmont Mountain-house, has been built at an elevation of 3,200 ft. on the northern face of the mountain, at a distance of twenty miles from New Plymouth by the Junction and Egmont Roads. Eighteen miles can be driven over, and the remaining two ridden. This house is maintained by the Egmont National Park Board, and is open for the accommodation of visitors from about the 20th of December to the middle or end of April in each year. The keeper acts as guide also. The time usually occupied in the ascent from the house is from three to four hours for men, and four to six hours for ladies. There are two women's rooms at one end of the house, and two men's at the other, with large common living- and dining-room in the centre. Visitors have now the option of being supplied with meals at a cost of 1s. 6d. each, or they may provide and cook their own food. Horse feeds, 1s. 6d. each; paddocking, 6d. daily, or 2s. 6d. a week. A small charge for use of house is made to visitors of 1s. per night or 5s. per week throughout the visit. In addition to the mountain-house, the Board has erected a cottage of three rooms, comprising two bedrooms (fitted with four bunks each), and one living room in between. This cottage is intended for renting by the week to family parties, only one such party occupying it at a time, the minimum charge per week being two pounds sterling for a party of four adults; over that number and up to eight (the limit allowed), 7s. 6d. each per week; children over five and under twelve years, half rates. The cottage is not let to any one party for a longer period than two weeks while there are other applicants. The Board provides cooking and other utensils, firewood, and water, also mattresses and pillows; but visitors must take their own blankets, and provide and cook their own food. The caretaker at the mountain-house keeps a small stock of the principal lines of food usually wanted for sale to visitors. The cottage is within 60 or 70 yards of the mountain-house, and in charge of the same caretaker, but parties desirous of renting it should communicate with the Honorary Secretary to Committee for Northern Division of Egmont National Park, New Plymouth, giving dates between which they require it. These applications are booked in order of priority of receipt (after notification that offers will be received, usually in the early part of December). The cottage is opened and closed on same dates as the mountain-house. Guide's fee for mountain, £1 per party. During the past season there were many visitors, remaining various periods of from one or two days to as many weeks. The view from the top is superb, including as it does, volcanic cones of Ruapehu, Ngauruhoe, and Tongariro, the whole of Taranaki, and a considerable portion of Auckland and Wellington Districts, also across Cook Strait to the mountains of Marlborough and

Nelson Districts of the Middle Island. In fine weather, when the snow is off, the mountain can be ascended without risk. A considerable sum has been expended in improving the accommodation at the house during the past season.

The mountain can also easily be ascended from Stratford side, the return journey occupying about thirteen hours, including stoppages. Tourists can ride over the first eleven miles to the Pembroke Road Mountain-house (three rooms) above the bush-line, altitude 3,720 ft.: time occupied, about two and a half hours. A new two-roomed cottage has been erected, and was in use last season. Here the horses are left, and the remaining climb has to be done on foot: time required for fair walker, a good three hours, although, coming down, the distance can be done in two hours. Two hundred and fifty persons visited the mountain by this route during the season. Good hotel-accommodation, guide, and horses can be obtained in Stratford. Provisions are kept on reasonable terms by the caretaker at the house. The return trip can be varied by visiting Dawson's Falls and Kendle's Cascade, or by a run across to the Egmont Mountain-house. Those who do not care to attempt the summit will be amply repaid by the pleasure of the ride through the forest, and by the magnificent views to be obtained from the house. The houses have sleeping-accommodation for about thirty persons.

Another route now coming into favour is from Hawera or Eltham *viâ* Manaia or Kaponga and Dawson's Falls. At the latter place a comfortable shelter-house, capable of accommodating over forty people, has recently been erected, and is known as the Falls Mountain-house (altitude, 2,990 ft.). This house, which is close to the Falls (65 ft.), is within an easy two hours' ride of Kaponga. During the season the house is in charge of a caretaker, and food, horse-feed, and paddocking can be obtained. There were 1,008 visitors to Falls and mountain by this route during the season. A comfortable three-roomed cottage has been erected in connection with this house. Water is obtained from the adjoining creek by means of a ram. From the house to summit of Mount Egmont occupies from four to six hours' climbing at a moderate pace, the time being in accordance with strength and composition of party. From the top the tourist can, instead of returning by same route, drop down to the mountain-house on the north or New Plymouth side of, and 3,000 ft. up, the mountain. The walk would not occupy over two hours, easy walking, or he could go out *viâ* Stratford.

Since last season a track has been partly made from the western side of the mountain, enabling 100 tourists to ascend *via* Rahotu; but the want of an accommodation-house has somewhat interfered with traffic—a fault which, it is hoped, with Government assistance may be remedied shortly.

Soils.

The volcanic soil, the boundaries of which have been already described, varies a good deal in quality. The best is believed to be on the south side of the mountain, between Stratford, Hawera, and Opunake, but not less than two or three miles from the forest-reserve boundary. It is thought that the country now being opened to the north and east of the volcanic deposit—that is, the papa and limestone formation—will, from the presence of lime, be much richer and more lasting as pasture-land than that around the mountain. The carrying-capacity of the land is, on an average, two and a half to three sheep to the acre.

Dairying, Grazing, and Agriculture.

Taranaki is essentially a grazing and dairying district, its chief products being butter and cheese.

There are 101 dairy factories and 65 skimming stations scattered over the district. Of these factories, 80 produce butter only, 19 butter and cheese combined, while 2 produce cheese only. Seventy-eight factories and creameries are owned by proprietory companies, while 88 are run on co-operative principles. There are also in this district 15 registered packing-houses for milled butter, 214 registered private dairies for butter-making, and 2 for cheese only, besides many small plants run on individual farms of which no record is obtainable.

In September, 1896, a new work in connection with the dairying and meat

industries was started in the shape of the Taranaki Freezing Works. They are situated at Moturoa, near the breakwater, and close alongside the railway-line. Substantial buildings have been erected, and a railway siding laid down. The machinery consists of a "Paxman" compound surface-condensing engine of forty indicated horse-power, driving a "Livide" compressor, capable of freezing 400 sheep per diem: although up to the present time the company has confined its attention wholly to the freezing of dairy produce. During the year 1901 the output from the works has been—Butter, 183,531 packages, weighing 4,588 tons 5 cwt. 56 lb. net; cheese, 21,624 packages, net weight 1,351 tons 10 cwt. During the hot season the factories and railway-vans carrying butter have been supplied with ice from the works at a nominal cost.

At the Taranaki Bacon Factory, Fitzroy, substantial buildings have been erected and a 6-horse-power "Livide" machine fitted up, and the owner, Mr. Drake, has the works in full swing. The pigs are purchased from the farmers in the district and delivered at the styes in connection with the factory, where they are topped off with corn-feeding for fourteen days before being slaughtered. The number of pigs put through during past season was 3,651; price, about 3½d. per lb. dead weight. The hams and bacon exhibited by this factory have always taken first-class honours in the various agricultural shows. An industry like this cannot but prove of great assistance to settlers in the district, and should receive their most cordial support.

There are in the Taranaki District 18,821 horses, 224,970 cattle, 564,392 sheep, and 20,294 swine. These figures include all kinds and ages.

Agriculture has not hitherto been carried on to any great extent in this district. The total area under corn-crops and cut for threshing during season 1901–1902 was 5,890 acres; corn- and grass-crops cut for hay, chaff, or ensilage, 10,972 acres; corn- and green-crops for feeding to, or down with, stock, 897 acres; sown grasses and clovers for feeding down, 748,951 acres; sown grasses for seed, 2,379 acres; potatoes, 1,647 acres; beet, 14 acres: turnips, 7,529 acres; mangolds, 587 acres; rape, 2,009 acres; carrots, 418 acres; other crops, 34 acres; total area under crops of all kinds, including gardens, orchards, vineyards, 783,176 acres. Plantations, 1,292 acres; fallow, 460 acres.

The average yield of different grain-crops in bushels per acre for season of 1901–1902 was: Wheat, 33·0; oats, 35·0; barley, 40·0.

Mining.

The only mining going on at present is at the Mokau Coal-mines, which are situated on the Mokau River, about twenty-three miles from the sea, the river being navigable right up to the mines for vessels of 7 ft. 6 in. draught. The coal is the best class of pitch-brown, and is excellent for household and steam purposes. Eight distinct seams are already known, varying in thickness from 2½ ft. to 8½ ft. The latter, the one now being worked by Mr. Stubbs, is the middle one of the series, and has a horizontal band of slate in it varying in thickness from 3 in. to 10 in. The entrance to the drive is about 40 ft. above the river, and runs some 30 chains into the hill on a very easy upward grade. The roof is hard, and the mine thoroughly dry and well ventilated. Owing to want of shipping the output for past year was only 3,513 tons.

The property, comprising 12,414 acres, has been purchased by the Taranaki Collieries Company, of Sydney, but the mine is leased to Mr. Stubbs, who has been working it for the past four years. A double tramway has been laid down through the mine, and 100 new skips put on the road with a view of increasing the output. The company have already two steamers in the trade, and one in course of erection.

Ironsand is found in great abundance on the seashore from Mokau to Patea, a distance of 130 miles. It produces, when smelted, from 50 to 60 per cent. of iron of the finest quality. The first attempt to smelt this sand was made in 1848, and several trials have been made since, but the heavy cost of production and the absence of capital and modern appliances have, so far, retarded the industry. Strong efforts are now being made to remedy this by the introduction of outside capital, and it is hoped these will shortly be successful.

Climate.

The climate of Taranaki is remarkably healthy, without any extremes of temperature. Below is given a table of mean, maximum, and minimum temperatures in shade for each month of the year ending December, 1901:—

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Mean temperature	66	65	63·5	62	61	61	56·5	55	59	61·5	63	63·5
Extreme maximum temperature ...	84	81	80	87	88	84	84	84	86	91	92	88
Extreme minimum temperature ...	42	47	45	39	34	32	30	31	37	32	36	40
Number of days on which rain fell ...	18	17	21	15	25	23	26	19	20	17	19	25
Total rainfall per month in inches and decimals ...	3·740	4·550	2·840	3·510	3·415	7·440	8·390	3·820	4·850	3·930	3·350	8·605
Mean barometric reading for the month	29·99	30·11	30·10	30·21	30·16	30·21	29·84	30·21	30·25	30·24	30·15	29·86

The mean barometric reading was 30·111 in. for the year. Total rainfall, 58.440 in. on 245 days, the maximum fall being 3·480 in. on 19th December. The rainfall varies considerably, as, for instance, at Norfolk Road, three miles south of Inglewood, the rainfall for the year 1901 was 97·39 in. on 209 days; the maximum fall was 5·87 in. on 19th December. The average rainfall at New Plymouth during the past eight years was 62·955 in., and at Norfolk Road for same period 101·41 in.

Chief Towns.

The principal town of the district is New Plymouth (population about 4,405), situate on the seashore, about two miles from and to the north-east of the picturesque rocky islets known as the Sugar Loaves. The general appearance of the town is very attractive, and it abounds in neatly-kept gardens. The Recreation Grounds, from which a good view of Mount Egmont is obtained, form a favourite resort.

New Plymouth is 252 miles by rail from Wellington, the railway running in a northerly direction through the district from Patea to Sentry Hill, where it turns at right-angles westward for eight miles to New Plymouth. From Sentry Hill there is a branch line to Waitara, four miles distant.

The Port of New Plymouth is situated at the Sugar Loaves, two miles from the town. Protection for shipping is afforded by a concrete mole or breakwater running in a north-east direction for a distance of 1,900 ft. Under the lee of this there is wharf-accommodation provided for the coastal trade. Steamers of 1,000 tons can be berthed here in almost all weathers. The wharf is connected with New Plymouth by both rail and road. The breakwater was built at a cost of £200,000, borrowed under security of one-fourth of the land revenue of the Provincial District of Taranaki, and the right to levy a rate over certain lands. The present rate levied is ¼d. in the pound on the capital value. The principal over-sea exports from breakwater for the year (exclusive of all coastal trade) were: Bacon and hams, 513 cwt., value £1,512; butter, 87,434 cwt., value £373,790; cheese, 26,103 cwt., value £55,603; fungus, 1,552 cwt., value £2,863; leather, 190 cwt., value £808; grass seeds, 100 cwt., value £147; tallow, 219 tons, value, £4,196; total value, £505,374. Imports (oversea): value, £73,631. Customs duties for the year, £22,605. During the year 625 steamers entered and left the port: tonnage, 235,561, with crews numbering 12,197. The number of passengers to and from the breakwater by sea, 22,947, being 5,813 more than preceding year.

Manufactures in New Plymouth are represented by a sash-and-door, a boot, butter-keg, and three coach factories, a brewery, a cordial, and also a patent-stopper factory, a flour-mill, tannery, fellmongery, bone-mill, and iron-foundry, with freezing-works and bacon-factory in the suburbs. The town has both water and gas laid on.

Hawera, the next largest town, is situate on the eastern edge of the Waimate Plains. The population is 2,131, and the town is lit with gas. The Wellington-New Plymouth Railway runs close to it, the distance by rail from New Plymouth

being about forty-eight miles. Hawera is surrounded by a first-class dairying and grazing country, capable of carrying a very large population. On 1st December, 1898, an up-to-date bacon-factory, costing some £1,200, commenced the work of killing and curing in Hawera.

The Town of Patea is situated on the coast, at the extreme southern end of the district, and has a population of 691. There is a splendid grazing district inland, with a large area of land yet to be opened up. The principal industry is the boiling-down and canning of meat, and the Western Packing and Canning Company during the past season slaughtered 3,005 sheep, averaging 61 lb. each, and 1,023 head of cattle, averaging 740 lb. each, the output being 4,009 cases of tinned meats, 210 casks of tallow, 250 tons manure, 100 gallons neatsfoot oil, 75,911 lb. of frozen mutton, 3,003 sheepskins, 1,023 hides. There is also a dairy factory, which has two branch creameries in the country. A bacon-factory has also been established. Exports for 1901 were: Wool, 6,438 bales; fungus, 893 bags; tallow, 545 casks; pelts, 172 casks; loose hides, 5,562; corn, 200 sacks; cheese, 1,698 cases; butter, 10,314 cases; flax, 111 bales; meat, 3,918 cases; cattle, 62; sheep, 245; bonedust, 943 tons; sundries, 583 packages; bacon, 7 cases; empties, 1,020; pigs feet, 40 bags; transhipment, 161 tons. Imports: Ordinary, 7,034 tons; coals, 1,837 tons. Wharfages amounted to £1,853, dumping dues £406, tonnage dues £318. The number of steamers in and out were 163. The Harbour Board has an up-to-date wool-dumping press and hydraulic pumps. The width between the east and west pier-heads is 260 ft.; width of channel about 180 ft., gradually narrowing to 100 ft. as the beacons are approached. The pilot reports the depth of water at not less than 12 ft. at high-water springs, and 9 ft. at high-water neaps, with a straight channel.

Stratford, a comparatively young town, lies about midway between Patea and New Plymouth. It has already a population of about 2,027, and is growing fast. The height above sea-level is 1,000 ft., and the climate is bracing though somewhat moist. The main road to Auckland—known as the Stratford–Ongaruhe (now Ohura Road)—starts here. It has been formed as a cart-road for fifty-six miles, and as a bridle-road to sixty-one miles. If the work is continued energetically, communication with Auckland should be opened up in about three years' time. A commencement has been made with the construction of the railway line between Stratford and Auckland *viâ* Kawakawa, and the works are being pushed on vigorously, the line being practically completed as far as Toko. A bacon-factory has been started at Stratford under very favourable circumstances, and is likely to prove a public benefit, and also a financial success to the proprietary company. The works are on a fair scale and up to date. The machinery is driven by a 30-horse-power Victor turbine, the power being obtained from the Patea River through a tunnel 865 ft. long, cut across a bend in the river. The refrigerating engine is a 6-ton British Linde, while hot water is supplied from a high-pressure boiler in an adjoining building. The chilling-chamber holds about 120 carcases (or one day's killing); here they remain overnight, and are then passed on to the curing-room, a spacious compartment of 80 ft. by 26 ft., capable of holding 1,000 carcases; from here they pass to the drying-room, of same size and capacity, on the upper story. A brick smoke-house, capable of dealing with 600 pieces at a time, has also been erected. The piggeries and slaughter-house are about a mile from the works, and are connected by tramway; the former consists of twenty compartments holding ten pigs each, and are conveniently arranged for feeding, &c., the output during the past season being 3,148 pigs—average weight 145 lbs.; average price, 3¾d. per lb. On the Eltham–Opunake Road another factory, called the "Pioneer Bacon Factory," was started by Mr. Buchanan in 1897, putting through last year 2,330 pigs—average weight, 138 lb.; price given, about 3¾d. per lb.

Waitara, a seaport town of 765 inhabitants, is situated on the river of the same name, a mile up from the sea, and about ten miles north-east from New Plymouth. The Mount Egmont Freezing-works have passed into the hands of a new company, styled the "Waitara Freezing and Cool Storage Company, Limited," who have rebuilt and greatly enlarged the works, the storage capacity now being for 25,000 carcases of mutton, together with five freezing rooms, capable of hanging 1,200 carcases, also a beef-chilling room and a mutton-chilling room.

Provision is made at the slaughterhouse for accommodation of fourteen mutton and three beef butchers. The freezing-plant is a 60-ton Hercules, and is guaranteed to freeze 1,500 sheep per day. The boiling-down and tallow department is most complete and up to-date, and a large manure plant is now in course of erection. The works are fitted throughout with electric light. The following produce was dealt with during the year: 10,552 quarters of beef, weight 1,969,341 lb; 9,863 carcases of mutton, weight 596,695 lb.; 6,613 carcases of lamb, weight 231,184 lb.; 10,245 legs and shoulders, weight 76,680 lb. All produce is conveyed on board the New Zealand Shipping Company's ocean-going steamers (which anchor in Waitara roadstead) in specially constructed and insulated bags. These works are gazetted as Government grading and cool stores, which is a great convenience for outside dairy factories, as it avoids risk of injury to their produce after it has been graded. The exports from the port for the year 1901 were: Wool, 3,746 bales; grain, 51 tons; grass-seed, 1,341 sacks; hides, 2,103; skins, 45 bundles; timber, 23,851 super. feet; flour, 44½ tons; potatoes, 772 sacks, horns, 9 bales; tallow, 573 casks; pelts, 84 casks; cattle, 267 head; horses, 15; sheep, 323; leather, 26 bales; frozen meat, 1,306 tons; butter, 85 boxes; fungus, 26 bales; general cargo, 560¾ tons. Total tonnage of exports for year was 3,783 tons. Imports for same period were: Grain, 125 tons; wheat, 122 sacks; manure, 136¾ tons; lime, 74 tons; timber, 279,522 super. feet; coal, 4,125 tons; wool, 285 bales; fungus, 67 bales; hides, 254; skins, 12 bundles; flour, 697 tons; horses, 10; sheep, 260; posts, 648; butter, 241 boxes; pigs, 61; general cargo, 3,907 tons. Total tonnage of imports, 9,763 tons; making in all a gross total of 13,546 tons of cargo handled at the port during the year. 186 steamers and sailing vessels, gross tonnage 45,731, entered and cleared during the year, the crews numbering 2,044. Besides these nine large ocean-going steamers anchored in the roadstead, and took in cargo for London.

Inglewood, situated on the railway-line, sixteen miles south-east of New Plymouth, is a flourishing little town of some 719 inhabitants, rapidly coming to the front. Last season a bacon-factory was started, and during the year has put through 3,330 pigs; average dead weight, 138 lb.; price given, 3¾d. per lb. The factory is worked by a 24 in. turbine, the water being conveyed in a race 10 chains long. It is provided with a four-horse-power tubular boiler, a Lard jacket, and Californian pump. There is also a size "D" ammonia refrigerating machine.

Eltham, a rising borough of 800 inhabitants, is making very rapid progress. Last season a bacon-factory was started there, and during the year put through 2,276 pigs, average dead weight, 138 lb.; average price, 3¾d. per lb. The value of butter sent from the railway-station, the output from five factories, was £164,000.

Opunake, a seaport town of some 466 inhabitants, was visited during the year by 43 steamers. Imports, 782 tons; exports, 210 tons; but more than half the trade of the district does not come or go through the port; in fact, the goods carried by road are on the increase.

The only other towns of importance are Manaia, population, 447; and Normanby, population, 370.

Roads and Railways.

The chief means of communication is the railway from Wellington, which traverses the district between Patea and New Plymouth—a distance of sixty-six miles. Through trains run every day, except Sunday, between New Plymouth and Wellington, and *vice versa*, a distance of 252 miles. The Main North Road runs from New Plymouth, passing through the Towns of Waitara and Urenui; and is formed as a cart-road to Mokau, the northern boundary of the district. All the streams are bridged with the exception of the Tongaporutu River (the contract for a bridge over which has, however, now been let), and the Mokau River, on which is a good ferry. From Mokau there is a dray-road right through to Te Kuiti, on the Auckland railway system. About midway between New Plymouth and Waitara on the above road the Mountain Road diverges and runs almost due south, and chiefly along the railway, for a distance of forty miles, connecting with the Main

South Road at the Town of Hawera. This is at present the principal road in the district, tapping, as it does, large numbers of district roads, and passing through the Towns of Inglewood, Midhurst, Stratford, Eltham, Normanby, and Hawera.

The Ohura Road branches from the Mountain Road at Stratford. It is formed and open for traffic as a dray-road for fifty-six miles from Stratford and for horse-traffic to sixty-one miles. A coach runs in summer time every Tuesday and Friday (returning on following days) between Stratford and Whangamomona Village, a distance of forty-one miles, fare, 12s. 6d. each way; and the road is now being extended into the interior so as eventually to connect with Auckland, and will open up a large area of fertile country.

The Main South Road from New Plymouth follows the trend of the coast to the south, and was at one time the coach-road to Wellington. It passes through the Villages of Omata, Oakura, Okato, Rahotu, Otakeho, Manutahi South, and Kakaramea, and the Towns of Opunake, Manaia, Hawera, and Patea.

The Junction Road runs south-east from New Plymouth, and crosses the Mountain Road and railway at Inglewood, thirteen miles out; it is metalled for thirty-five miles, formed as a dray-road to forty-four miles, thence as a bridle-road to forty-five miles and three-quarters, where it connects with the Ohura Road at a distance of thirty miles from Stratford. This road crosses a number of district roads; hence its name.

The Opunake Road runs from Stratford to Opunake, twenty-six miles, skirting the southern base of Mount Egmont. It is formed and metalled for twelve miles from Stratford; the remainder is open for horse-traffic only. Vehicular traffic turns down the Manaia Road to Kaponga, thence along the Eltham–Opunake Road to the latter place. This route is metalled throughout.

The Eltham Road runs from Eltham to Opunake, twenty-five miles, connecting with the Opunake Road at Punehu, seven miles from Opunake. This is formed and metalled throughout.

The other main roads in course of construction are the Rawhitiroa Road, leaving the Mountain Road near Eltham; the Otaraoa, Moki, and Okoke Roads.

Crown Lands available for Settlement.

In this district there are 567,430 acres of Crown lands available for settlement, and in addition 239,600 acres of Native lands still undealt with, and exclusive of Native reserves.

Of the above, about 150,000 acres are open valleys and hills in the north-east corner of the district; a good deal of it more or less pumice-land, but still suitable for grazing. From the rest may be subtracted perhaps 10,000 acres for area absorbed by rivers, gorges, &c., and there remain 647,030 acres of forest-land yet to be dealt with. Of this area perhaps 50,000 acres, made up of strips of flats and terraces, may be suitable for agriculture; while the balance—597,030 acres—will be good pastoral land. A guide, giving particulars of any Crown lands open for selection, will be supplied free to any one applying personally or by letter to the Lands and Survey Department, New Plymouth.

It may be said, in conclusion, that there is every sign of genuine prosperity throughout the district, which has advanced rapidly during the last few years, and will no doubt continue to do so.

THE HAWKE'S BAY LAND DISTRICT.

E. C. Gold Smith, Chief Surveyor.

The Land District of Hawke's Bay comprises that portion of the east coast of the North Island from Cape Turnagain, in latitude 40° 30′, northwards to Lottin Point, about thirty miles beyond the East Cape, and contains the Waiapu, Cook, Wairoa, Hawke's Bay, Waipawa, and Patangata Counties.

It has a seaboard of 300 miles, with an average depth from the coast of forty-five miles, and embraces an area of 6,063,000 acres. Its western limit is defined by the Ruahine, Kaweka, Ahimanawa, Raukumara, and other high ranges that form the watershed between the rivers flowing through it to the sea, and those that run to the west coast and the Bay of Plenty.

Physical Features.

The Ruahine Range extends northwards for about sixty miles from the Manawatu Gorge as far as the valley of the Ngaruroro River. Its altitude varies from 3,000 ft. to 6,000 ft., and for a considerable distance its summit is snow-clad during the winter months.

The Kaweka, a shorter range, divided from the Ruahine by the Ngaruroro River, attains an altitude of 5,650 ft., is very rugged and steep, and a prominent feature in the landscape in winter, covered as it then is with snow.

From these two ranges, which fall very abruptly on the Hawke's Bay side, the land slopes gradually to the sea, forming in some parts fine rolling hills—the essence of a sheep-country—in others extensive plains, with comparatively little poor soil.

Northwards from the Kaweka there is a series of forest-clad ranges of varying height, stretching away in the direction of the East Cape. Hikurangi, the highest point, is a bold peak with an elevation of 5,606 ft., rising so abruptly on all sides that the ascent can be made only at one point, and that with difficulty.

The only lake in the district of any extent is Waikaremoana, so famous for its magnificent scenery. It lies about thirty-five miles inland of the Wairoa (Clyde), and is eleven miles in length, with a breadth at the widest part of about eight miles. Nestled among precipitous mountain-ranges, wooded to the water's edge, with numerous bays and inlets, it has a natural beauty hardly to be surpassed.

From Wairoa there is a formed road to the lake, and twenty-five miles round it, as far as the Oporuahine River.

The principal plains are: (1.) The Ruataniwha, some fifty miles south of Napier. This is 120 square miles in extent, is for the most part occupied as sheep-runs, and carries a large quantity of stock. (2.) The Heretaunga Plain, with an area of ninety square miles, lying immediately to the south of Napier. This is rich alluvial land; a large portion is thickly settled, the remainder used for grazing and agriculture. The only other plain of any extent is at Poverty Bay. It has an area of sixty-five square miles, is very fertile, well cultivated, and has a large population.

The land district is well watered throughout by numerous rivers and streams, but none are navigable except the Wairoa and Turanganui, and these only for vessels of light draught. They are both tidal, and serve as ports to the Towns of Wairoa (Clyde) and Gisborne.

Communication.

The chief outlets from Napier are three in number. First the Napier-Wellington Railway, which traverses the centre of the southern half of the district for its whole length of 100 miles, and may be called the main artery of communication. Parallel to it throughout runs an excellent gravelled road, which was made before the construction of the railway. On either side there are numerous branch roads, which act as feeders, making a very complete system of internal transit. Another main road runs in a westerly direction to Kuripapanga, distant forty-five miles, a favourite resort in the summer time, removed as it is from the heat of the country near the coast. A coach runs thither twice a week, and on thence to Inland Patea, where the Napier Road meets the roads to Hunterville, Tokaanu, and the Wanganui River.

The part of the district served by these two main lines—viz., that between Napier and Woodville—contains the greater portion of the population, and from the extent of arable land within it is likely in the future to be very thickly peopled. Notwithstanding that so much of the Native land in this part is unoccupied and in its natural state, there are nearly a million of acres of land in sown grasses.

The only main road northwards from Napier is the coach route to Taupo, which, soon after leaving the fertile Petane Valley, begins to traverse poor country, and twenty-five miles out enters the light pumice soil.

The Napier-Wairoa Road has now been completed, with the exception of bridges at Waikare and Matahouroa Streams, and there is a weekly mail-coach service between the two towns. The coach is stopped occasionally by floods at the streams mentioned, and until the bridges are completed the heavy traffic between the two places will be done by a small steamer.

From the Wairoa a main road runs northward, through the Village of Tiniroto and on to Gisborne, a distance of seventy-five miles. For a considerable distance it runs through hilly country, and, as it has not been gravelled, wheeled traffic is suspended during the winter months; but a coach runs weekly for nine or ten months out of the year. The road from Wairoa to Gisborne *viâ* Nuhaka Hot Springs is completed and open for wheeled traffic.

Between Gisborne and Opotiki, in the Bay of Plenty, communication is not good. The road, which is 120 miles in length, has been formed to the Motu Township, distance of sixty miles. In the neighbourhood of the forest a large area of Crown lands has been taken up and settled in the last few years. The rest of the journey must be done on horseback. A railway is being constructed from Gisborne in the direction of Motu. The portion from Gisborne to Ormond, a distance of ten miles, is now open for traffic. The continuation of this line is being pushed forward, and will greatly assist the progress of the district.

The country to the north of Gisborne is now being rapidly opened up, the coastal road being open for traffic as far as Port Awanui, while several of the arterial roads are being extended.

Small steamers trade regularly along the coast, calling in at Tolago and Tokomaru Bays, Waipiro, Tuparoa, Awanui, Kawakawa, and other small bays.

Pastoral Industries.

The Hawke's Bay District is pre-eminently a sheep-grazing country, and the large area of 2,458,246 acres have been improved and sown in English grasses, clover, &c. In April, 1901, there were 4,512,526 sheep in the district, and the numbers of other stock were as follows: Horses, 30,487; cattle, 171,698; and swine, 16,530. The value of the wool exported from Hawke's Bay for the year ended 30th June, 1901, is £423,022, which is a considerable decrease as compared with last year.

Freezing works are now established at Tomoana, Port Ahuriri, and Gisborne, and the export of frozen meat for the year ended 30th June, 1901, was as follows: Beef, 2,211 tons, valued at £47,423; 168,677 carcases of mutton, valued at £96,989; 59,903 carcases of lamb, valued at £37,439; 78 tons of preserved meats, valued at £4,680: total value, £186,531. This shows a marked decrease as compared with other years, which is due, no doubt, to the facts that the crossbred wool is selling at the lowest price on record, and that the River Plate frozen-meat trade has caused a slump in the English markets. Again, we have to remember the extremely dry season experienced in Hawke's Bay, which, taken into consideration with the other drawbacks just mentioned, has had the effect of materially depreciating the value of stock. The frozen-meat industry still continues to employ a large number of men, both directly and indirectly; and it is to be hoped that wool and mutton will, in the near future, again realise the prices of later years.

Timber Industry.

As showing the importance of this industry, there are numerous sawmills in the district, and, outside of wool, frozen meats, tallow, and pelts, sawn timber ranks first in the value of the exports. Timber to the value of £15,850 was exported for the year ended 30th June last, as against £12,985 for the previous twelve months. It is satisfactory to note that sawmills have been established at Pohui and Puketitiri, in which districts there are large areas of valuable bush. As the bulk of the sawn timber from these places must necessarily come through Napier, it follows that the port and trade of the town will reap immense benefits from the further development of the industry in such vicinities.

Trawling Industry.

Fifty-six tons of fish, representing a value of £560, were exported last year, being a decrease of 236 tons, and £2,287, as compared with the previous twelve months. It is a matter for regret that what at one time gave every promise of becoming a large and promising industry should be in the position these figures disclose. The trouble appears to be that fish are not now present in the same numbers as when the industry first started.

Agricultural Pursuits.

Agriculture is not carried on to the extent it might be with so much land suitable for root- and grain-crops. No doubt this is due to the profits made in sheep-farming. It is chiefly confined to the Heretaunga Plains and the flat lands near Gisborne. The soil is favourable to root-crops; potatoes range from 12 to 15 tons to the acre, and in some instances exceed this amount. Only a moderate quantity of grain is grown; barley, for which the soil seems well adapted, returning from 20 to 60 bushels of good sample to the acre.

Dairying.

Settlers are now turning their attention to dairying, and factories have been established in the bush districts at Norsewood, Ormondville, Maharahara, Gisborne, and Woodville, whilst several others are in contemplation. At the last-mentioned town a cheese-factory has been in existence for some years, and turns out an excellent article much sought after in other parts of the colony. There can be no doubt that the further development of the dairying industry must materially benefit the farming class—especially the small farmer, who may find it difficult to make a living out of sheep.

Other Industries.

Other industries, such as fellmongeries, soap-works, boot, coach, and sash-and-door factories, &c., are established in the principal towns, and during the year 1901 the Hawke's Bay Woollen Manufacturing Company commenced operations in their factory at Napier, and give employment to a large number of hands.

Climate.

The climate is generally of a mild character, and, though hot along the coast-lands in the height of summer, it is, owing to the dryness of the atmosphere, not so relaxing as in parts of the island farther north. The rainfall is light, excepting in the bush districts and high inland country.

Napier itself is recommended by many medical men as a resort for invalids suffering from pulmonary complaints, chiefly on account of the mildness of its winter season. The average rainfall for the last thirty-four years is 37·070 in.

Towns.

Napier is pleasantly situated on the peninsula known as Scinde Island, which is joined to the mainland by a narrow shingle-bank several miles in length. It is a busy town, with a population of about 9,000. The business part is on the flat land at the foot of the group of hills that take up the greater part of the peninsula. These hills, formerly barren and waste, are now occupied by numerous private residences, and the very general tree-planting has given the upper town a distinctive and pleasing character. There is an excellent water-supply, derived wholly from artesian wells of large size, and pumped by machinery to reservoirs on the tops of the hills. The shipping trade, as the large exports show, is especially active during the wool and frozen-meat season. It is still carried on at Port Ahuriri, about a mile from the town; but has recently, in a large measure, been transferred to the fine breakwater which is now almost completed. During the year ending 30th June, 1901, the imports amounted to £209,202, and the exports to £848,254.

Gisborne, the trade-centre and port of what is known as the Poverty Bay District, is a prosperous town of about 2,700 inhabitants, exclusive of Maoris, rapidly increasing in size and importance, as the large quantity of unimproved land in the Cook County is fast becoming settled and made productive. There are 1,214,105 sheep in Cook and Waiapu Counties, and Gisborne's exports amounted to £373,817 in 1901.

Clyde, the county town and port of the Wairoa County, is picturesquely situated on the Wairoa River, about three miles from the mouth. The river is navigable for small craft as far as the village of Frasertown, twelve miles further up.

With a few exceptions, the towns and villages to the south of Napier are all situated on the line of railway running from that city to Palmerston North. The principal are: Hastings, a rising town of about 3,700 inhabitants, Waipawa, Waipukurau, Dannevirke, and finally Woodville, about three miles from the Manawatu Gorge, and distant ninety-eight miles from Napier. It is at this end of the district that the Crown has, in the last few years, successfully planted settlement, and, in place of the continuous forest known as the Seventy-mile Bush of earlier days, there are now prosperous townships, with various thriving industries established.

Crown Lands.

The land held by tenants of the Crown, of whom there are 948 in the district, under the various systems of tenure, amounts to 645,739 acres, and there remain about 216,217 acres not yet dealt with in any manner.

The latter is, for the most part, suitable for pastoral purposes only, any fit for agriculture lying in small, isolated spots, widely scattered, and such as could not be selected independently of the surrounding inferior land. Nearly the whole is broken forest country, fitted more for sheep than cattle, and having an average carrying-capacity, when cleared, of about one sheep to the acre, though the best of it might possibly graze from two to three. The land is chiefly in the Hangaroa, Koranga, Mangatoro, Norsewood, and Motu Districts, and the back-country of the Waiapu County.

About 56,586 acres are now open for selection. This area includes lands open under the small grazing-run system.

The following is a short description of some of the areas to be dealt with in the future:—

Waitahaia Block, Waiapu County.—18,528 acres. Nearly all forest country, with soil varying from light to good.

Mata Survey District.—1,756 acres, being the Aorangiwai No. 1 Block; broken forest country; soil fair.

Tutamoe Survey District.—7,750 acres, being the Huiarua No. 1 and Tutamoe Blocks; all bush, broken, soil medium. Situated about thirty miles from Tokomaru.

Urutawa Survey District.—16,030 acres, being the Whitikau No. 1 and Whakapaupakihi Blocks. Broken forest country, soil fair.

Koranga and Ngatapa Survey Districts.—About 42,684 acres, being part of the Tahora No. 2 Block, situated north of Waipaoa and Ruakituri Rivers, and between them and the Koranga River. It comprises some very hilly country, but, though nearly all the land is covered with bush or scrub, there is some fair soil, and would make fair pastoral country. All well watered. North of this portion the Crown has some 70,000 acres in the Auckland Land District, west of the Waioeka River.

Hangaroa Survey District.—25,004 acres cut up into five small grazing-runs, comprising undulating and broken country with light soil on papa formation. Forty-two miles from Gisborne.

Motu Survey District.—47,100 acres, being the Motu Block. Part undulating country, rest broken. One-third open fern and scrub, remainder forest clad. Soil light. About sixty miles from Gisborne, along the Opotiki Road.

Patoka Survey District.—4,028 acres, chiefly forest country, with light soil. Part river-bed.

Puketapu Survey District.—320 acres, in Block I. Waste land, north of the Pokopoko Stream, and west of Sections 16 to 20. Chiefly gullies.

Tahoraite and Norsewood Districts.—About 7,366 acres, being the Tamaki No. 1 Block. Bush country, all covered with heavy forest. A good proportion undulating land. All well watered. It will probably be some time before this block is opened for selection.

Norsewood Survey District.—Piripiri Block, 17,056 acres. Part of this block is in the Wellington Land District. It will probably be some time before this block is in the market.

In addition to the foregoing, there is an area of 17,345 acres, principally small blocks scattered over various districts, as follows: Mata, 1,074 acres; Hikurangi, 1,931 acres; Tokomaru, 216 acres; Waingaromia, 4,522 acres; Uawa, 372 acres; Hangaroa, 1,218 acres; Waiapu, 798 acres; Matakaoa, 145 acres; Opoiti, 3,676 acres; and Nuhaka North, 575 acres agricultural and 3,025 acres pastoral.

Native Lands.

Of the Native lands in this district, a very considerable portion has been leased to Europeans, but there still remains in the hands of the Maoris a valuable estate, comprising both agricultural and pastoral country, and including some 800,000 acres of excellent land. This land lies for the most part in the Waiapu County, towards the East Cape.

Thermal Springs.

At Waipiro Bay and Nuhaka thermal baths have been constructed and their medicinal properties are highly spoken of. Both places are now accessible by coach and the number of visitors, especially in the summer-time, is considerable.

THE WELLINGTON LAND DISTRICT.

J. W. A. MARCHANT, Surveyor-General.

The Wellington Land District is bounded on the north by the Districts of Auckland and Hawke's Bay, on the west by that of Taranaki, on the east by the sea, and on the south and south-west by Cook Strait. The area contained within these limits is about 6,810,958 acres. It lies between the parallels of 39° and 41° 30′ south latitude; its greatest length north and south is about 180 miles, and its mean width east and west about sixty miles.

General Physical Features.

The district is divided into two well-defined parts by a mountain range, which forms part of the backbone of the North Island. At its northern end this range—there known by the name of Ruahine, and averaging a height of about 4,000 ft.—divides Wellington from Hawke's Bay; but after passing the point where it is intersected by the Manawatu River, the range takes the name of Tararua for many miles, until, at about forty miles from the termination on the shores of Cook Strait, it divides into two main ranges, known respectively under the general names of Rimutaka and Tararua, both ranges averaging from 2,500 ft. to 3,500 ft. in height, the highest point being Mitre Peak, 5,154 ft. Parallel to the main range, and divided from it by the Wairarapa Plain and the undulating country to the north, is a series of ranges at a few miles inland from the East Coast, known as the Puketoi, Taipo, Maungaraki, and Haurangi Ranges. Lying on the northern border of the district are the Kaimanawa Ranges, offshoots from the Ruahine. They are for the most part open and grass-covered, rising to a mean height of about 4,500 ft. Westward from the latter mountains, and divided from them by a deep, broad valley, in which flow the Waikato and Wangaehu Rivers, is the volcanic chain of mountains containing Ruapehu, 9,008 ft., and Ngauruhoe, an active volcano, 7,515 ft. high. The long sweeping curve of Cook Strait, forming the south-western limit of the district, is bordered, from the Patea River to within thirty miles of Wellington, by a comparatively level and undulating country, now nearly all under cultivation, having an average width of about fifteen miles. This is one of the finest parts of the colony, and is celebrated for its stock-raising capabilities. It

was originally in a great measure open, though the southern part, where the plain is narrowed in between the sea and the Tararua Range, has a good deal of forest on it, now fast disappearing under the axe of the settler.

Inland of this coastal plain, at varying distances from the sea, the country gradually rises to a mean height of about 1,500 ft. to 1,800 ft., and becomes a good deal broken in character. It was originally forest-clad almost throughout. It is much cut up by rivers and streams flowing from the interior to the sea, of which the principal, commencing from the north, are these: The Waitotara, the Wanganui, the Wangaehu, the Rangitikei, the Oroua, the Pohangina, and the Manawatu, which last, after leaving the gorge in the Ruahine Ranges, runs through level land to its mouth in Cook Strait. This broken country, being everywhere composed of papa, or marly formation, which takes grass excellently, promises in the near future to be a large sheep-carrying district.

At about fifteen miles south of the volcanic peaks of Ruapehu Mountain the papa country terminates in a fairly well-marked escarpment, giving place to a more level and undulating country formed of volcanic matter, the greater portion of which is forest-clad, though on the south-east, east, and west sides of that mountain there are open grassy plains, of no great fertility, but yet suited to pastoral pursuits.

To the eastward of the main range formed by the Rimutaka and Tararua Ranges is the great depression known at its southern end as the Wairarapa Plain, which gradually rises northwards from the lake of that name into wooded, somewhat broken country, of no great height, at a distance of some forty-five miles from the sea. From here the country falls again slightly to the Upper Manawatu River, the depression in this part being marked by the extensive flats in the neighbourhood of Pahiatua, and by the shallow valleys of the Mangahao, Mangatainoko, and Tiraumea Rivers and their branches. For thirty miles from the sea this great valley is mostly open, with patches of forest here and there, but becomes more plentifully wooded at the base of the Rimutaka and Tararua Ranges. The quality of the soil varies from light and stony, on the Wairarapa Plains proper, to rich papa country, as the northern end is approached. The southern end of this country is watered by the Ruamahanga River and its tributaries. Generally the district is a pastoral one, though agriculture is also pursued successfully. The neighbourhood of the Puketoi Ranges is in many places composed of limestone, and promises in the future to become a very rich pastoral district, such as will support a considerable population. In the forks formed by the Tararua and Rimutaka Ranges the Hutt River takes its rise, and runs in a southerly direction through an undulating or level country, finally falling into Port Nicholson. The valley contains some very fine land, generally held in small holdings.

Plains.

The two most important of these have already been mentioned. On the eastern side of the main range the Wairarapa extends northward from the lake of that name for about forty-seven miles, with an average width of about nine miles. In some parts, especially on the flats along the Ruamahanga River, the soil is alluvial and rich; in others, though stony and unfit for cultivation, it is nevertheless grassed, and carries stock well in the winter and rainy seasons. The plain is watered by the Waiohine, Waingawa, and Ruamahanga Rivers, and contains altogether about 200,000 acres, much of which is good agricultural land. On the other side of the district, west of the Tararua and Ruahine Ranges, there is a large block of land so nearly level that it may be called a plain, extending from Paikakariki (twenty-seven miles from Wellington) to Marton (a few miles north of the Rangitikei River), and contains about half a million acres. Starting as a narrow strip between the hills and the sea, the plain widens out by degrees until at Feilding it is at least twenty miles in breadth. Along the beach runs a fringe of sandhills, but behind this is to be found some of the best farming and grazing land in the colony. There are two plains inland—Murimotu and Waimarino—both lying some 2,200 ft. above sea-level, in the neighbourhood of Mount Ruapehu, the former to the south and the latter to the north-west of the mountain. The soil is covered with a coarse native tussock, and, though capable of carrying stock, is of a light porous nature, and cannot be classed as agricultural land.

Rivers.

First among these is the Wanganui—"the Rhine of New Zealand"—with a length of over 110 miles from its source, near Mount Tongariro, to its outlet. The Rangitikei, the next in size, rises in the Ruahine Mountains, and flows through the Awarua country, where it is joined by the Hautapu and other large tributaries. After a course of over a hundred miles it reaches the sea some little distance below the Township of Bulls, on the West Coast. The Manawatu is third in importance. Rising in the Ruahine Range, it flows through the picturesque Manawatu Gorge, joining the sea at the port of Foxton. Lesser rivers on the West Coast are the Waitotara (north of Wanganui), the Wangaehu (which takes its rise in Mount Ruapehu, and from its source to its mouth is so strongly impregnated with sulphur that fish cannot live in it), the Turakina, and the Otaki. The only other rivers of any size are the Hutt (Heretaunga), emptying itself into the Wellington Harbour, the Ruamahanga, flowing through the Wairarapa Valley and lakes into Palliser Bay, and on the East Coast the Pahaoa, Aohanga, and Akitio.

Lakes.

The only lake of any size in the Wellington District is the Wairarapa, lying between the Rimutaka and Haurangi Ranges, towards the southern end of the Wairarapa Valley. It is about twelve miles long and four broad, and is connected by the Ruamahanga River with Onoke, a small lake separated from Palliser Bay by a narrow shingle spit only. A passage through the spit is opened from time to time when the lake rises above its natural level and overflows the low-lying flats along its margin. Water-fowl of every kind—among them numbers of black swans—are to be found round about these lakes.

Scenery.

The views obtained from the railway-line in the ascent and descent of the Rimutaka Range are among the best in the neighbourhood of Wellington, and the road through the Forty-mile Bush was long considered one of the most beautiful drives in the North Island; but much of its pristine beauty has been destroyed by the felling of the bush consequent on the increase of settlement. The same may be said of the Manawatu Gorge, famed in the old coaching days for its lovely scenery, but now sadly marred by the construction of the railway-line. The most beautiful drive now left is through the Awarua Bush, from Ohingaiti to Moawhango. From this road, as it winds round the spurs, most charming glimpses are obtained of the Rangitikei River and the blue hills beyond, and at other points the traveller looks up deep ravines where the graceful fern-tree stands out in bright relief against the dark green of the native bush. Another road from Pipiriki, on the Wanganui River, to the Murimotu Plain, traverses one of the most magnificent forests in the North Island. Here the bushman's axe has felled only the timber standing on the road-line, and the track runs beneath the shade of the largest and stateliest maire and rimu known. Beautiful as these drives are, the scenery on the Wanganui River is still more lovely. A few miles below Taumaranui the river enters a series of gorges, shut in by high precipitous cliffs. Sometimes the canoe glides slowly through quiet reaches, sometimes shoots rapids which make the traveller hold his breath till they are passed, and then again traverses places where the water is ever in turmoil, boiling and eddying in whirlpools, taxing the energies of the most skilful Native steersman, and testing the nerve of the most courageous tourist. These experiences, with the views obtained of the banks, densely wooded even where the papa rock rises almost straight from the water's edge, make the eighty miles journey from Taumaranui to Pipiriki an event not easily effaced from the memory. Between Pipiriki and Wanganui excellent steamers are now running, so that the beauties of the lower part of the river may be seen by all without trouble or discomfort.

Forests.

The Wellington District is essentially a forest country, for out of the 6,810,958 acres contained within its borders about 3,000,000 are still under bush. By far the largest forest is the Waimarino, having an area of at least three-quarter million

acres, a large portion of it being nearly level land, containing magnificent timber, principally totara, maire, matai, rimu, and other pines. This forest is as yet hardly touched, though timber is being cut at Raetihi for the settlers now making their homes in the neighbourhood." The distance from the settled districts or any port will render the timber in this part useless as a marketable commodity until the country is opened up by the proposed Auckland Main Trunk Railway.

The next in size is the Rangitikei-Hautapu Forest, containing an area of about 350,000 acres, a considerable portion in the Awarua Block being first-class milling timber, which will be available as soon as the extension of the Hunterville Railway-line taps it. Between this and the Waimarino Forest there is a large extent of bush-land, drained by the Turakina, Mangamahu, and Wangaehu Rivers, extending up to the Wanganui River, and containing about 300,000 acres. Very little of this, from its inaccessibility, will be utilised for sawmilling purposes, but a great deal of it, together with a further block of 230,000 acres on the west side of the Wanganui River, will be cleared by the settlers and sown down with grass. A further block of about 100,000 acres of forest-land lies in the Pohangina Valley and on the slopes of the Ruahine Range. A large portion of this has been taken up and is now being settled.

The forest-land on the West Coast extends from Pukerua to the Manawatu Gorge, on the west side of the Tararua Range, and contains an area of about 300,000 acres, the bulk of it being fit only for turning into pasture. The most available part of it, alongside the Wellington–Manawatu Railway, is being extensively cut into by sawmillers at Levin and other places on the line.

After this in size is the forest on the eastern slopes of the Tararua Ranges, extending from Featherston to the Manawatu Gorge, which includes what remains of the well-known Forty-mile Bush, containing probably about 175,000 acres Portion of this area is being quickly denuded of timber by the sawmills established at Pahiatua, Newman, Hukanui, Eketahuna, and by settlers. A tract of about 50,000 acres lying to the east of the Puketoi Range cannot be utilised for milling purposes, as it is not tapped by any branch railway-line, and its distance from the main line would probably render the business unprofitable except for local purposes. Nor are there any suitable ports along the coast where timber could be shipped.

The other forests are, one near Lake Taupo, and the Haurangi Forest on the east side of the Wairarapa Lake. These consist for the most part of birch-covered hills, and cannot be considered as valuable for milling purposes.

Soil.

It may be said that the Wellington Land District contains within its borders a greater quantity of good land than any other in the North Island, very little, except the mountain-tops, being unfitted for use, while some of it is of very superior quality, suited for the growth of the productions of every temperate climate. As much of it is still forest-clad, settlers must look forward to having to make their farms by felling and burning the bush before grass can be sown, and, as it takes from ten to fifteen years before the plough can be used in bush-land, grazing, for which the climate and soil is admirably adapted, will be the principal industry for some time to come. It is generally calculated that the cost of felling and burning ordinary bush varies from 25s. to 35s. an acre. To this must be added about 20s. for seed and fencing. It is no uncommon thing for a return to be received at from twelve to eighteen months after felling. The usual practice is to put sheep on to the new lands soon after the grass has obtained a good hold. The process of improving the lands by the gradual "logging up" and burning of the fallen tree-trunks is a long one, but it pays in the end, for in this way fine pasture-lands are obtained on the hills, and agricultural lands on the flats.

Climate.

The climate of Wellington District is healthy and mild, the mean annual temperature (in the city) being 55·4, whilst the mean rainfall is 48·49 in. per annum. The rainfall differs, however, according to locality. Inland and near the ranges it is much greater. The top of Ruapehu Mountain is covered with perpetual snow, which

lies also on the tops of Kaimanawa, Ruahine, and Tararua in the winter. Frosts are heavy in the interior.

Harbours and Ports.

The coasts of Wellington are not so well supplied in this respect as are some other parts of the colony; but what is lost in number is made up in a great measure by the excellence of the chief haven—Port Nicholson—which, from the position it occupies, at the meeting-point, as it were, of the coastal traffic of both Islands, and from its sheltered position and depth of water, may be considered one of the most convenient harbours in the world. The Wanganui River, which has been considerably improved by artificial means, is the second port in the district, and has a considerable trade carried on by coastal steamers. Patea and Manawatu Rivers are also used by coastal steamers, whilst several other places along the shore afford shelter and stopping-places, according to the direction of the wind. The extension of railways along both coasts has, in a large measure, done away with the inconveniences arising from want of harbours.

Towns.

The capital of the colony—Wellington—is situated in the south-west angle of Port Nicholson, on Lambton Harbour. The wharfage accommodation here is second to none in the colony, and the wharves present always a busy scene of life with the numerous steamers and sailing-vessels continuously loading or discharging. As many as six ocean-going steamers are not unfrequently seen alongside, loading with wool, frozen meat, and other products, for conveyance to Europe. The port possesses a patent slip at Evans' Bay, within a short distance of the city. Founded in 1840 by the New Zealand Company, the city occupies the flats skirting the original shore-line, long since obliterated by the reclamation of the foreshore, which is now mostly covered with fine buildings. Rising close behind the old shore-line is a range of hills, the lower parts of which are all built over. The population of the city at the present time is about 44,000. Being the seat of Government, it contains the residence of the Governor and the headquarters of the Government departments, which are placed in what is said to be the largest wooden building in the Southern Hemisphere. There are several noticeable public buildings, amongst which must be mentioned the Parliamentary Buildings, containing a valuable library, General Post Office, Government Life Insurance Offices, Government Printing Office, Public Library, School of Art, and Harbour Board Offices. The Colonial Museum, under the management of Sir James Hector, and the Botanical Gardens, are also worthy of notice. The city is lighted by electricity, and its streets are well kept and clean, whilst an excellent supply of water is obtained from the Wainui-o-mata River, on the other side of the harbour. The principal industries are represented by iron- and brass-foundries, sawmills, soap-and-candle works, boot-factories, aërated water, meat-freezing works, coach-building, rope-and-twine works, sash-and-door factories, brick-, tile-, and pottery-works, besides a match-factory and innumerable other smaller works of various kinds. The city is increasing with rapid strides; its excellent position, together with the fine back-country, places it in the front rank of New Zealand towns. Its principal suburbs are Onslow, Melrose, and Karori, each containing from 1,200 to 3,000 inhabitants.

The Township of Petone is situated near the mouth of the Hutt River, seven miles from Wellington, on the railway-line. It has a population of 3,780, and is a rising township, containing the Government Railway Workshops, a woollen factory, with a meat-freezing and preserving establishment. The Lower Hutt, almost immediately adjoining, has also a large population, and some well-built residences with beautiful gardens. The Upper Hutt, situated at the head of the valley, has many small farms, owned by some of the very early settlers. The railway here starts the ascent of the Rimutaka Range.

Featherston, situated at the foot of the Wairarapa Valley, fifty-one miles by rail from Wellington, is a small township, with butter- and cheese-factories in the neighbourhood. Roads lead from it to Martinborough and the East Coast, and also down the Wairarapa Valley to Palliser Bay.

Greytown North is situated three miles off the main line of railway, and near the middle of the Wairarapa Valley, fifty-three miles from Wellington. The chief industries are sawmilling and coachbuilding. The population is 1,122 persons.

A few miles further north is the Town of Carterton, where are to be found timber-mills, cheese-factories, &c., and a population of 1,205 persons. There is some splendid farming land in this locality on the banks of the Ruamahanga River.

Masterton is situated at the head of the Wairarapa Valley, on the Wellington–Eketahuna Railway, sixty-seven miles from the capital. It is the centre of an agricultural and pastoral country, and has a population of 3,949. It is lit by gas, and has several industries, such as fellmongery, rope-making, flax-mills, coach-factory, &c., and, in addition, has some excellent fish-breeding ponds, from which many of the rivers in the colony have been supplied with trout. An important coach-road leads from here through a fine pastoral district to Tinui, and on to Castlepoint on the East Coast, where a large quantity of wool is annually shipped to Wellington for export.

North of Masterton is the Opaki Plain, and beyond is the entrance of the once famous Forty-mile Bush, which is now a thriving pastoral, agricultural, and dairying district. Butter-factories have been established at numerous centres.

Eketahuna is, by rail and road, ninety-four miles from Wellington. From there a main road leads to Alfredton, and up the Tiraumea Valley, through the East Puketoi country, to Weber and Dannevirke, on the Napier Railway-line.

Pahiatua, a township about fifteen miles beyond Eketahuna, has a resident population of 1,209. It is the county and market-town of a large and improving district, and will probably also become the centre of a large dairying industry. Several branch roads run from Pahiatua into the adjoining country, the principal one leading to Makuri through a beautifully-wooded gorge. From there another branch road passes over the Makuri saddle into the East Puketoi country.

On the West Coast, Pahautanui, at the head of the Porirua Harbour, is the centre of a small agricultural community of early settlers, the old coach-road to the West Coast running through it; and there is a branch-road leading over to Hayward's in the Hutt Valley. Paikakariki, twenty-seven miles from Wellington, may be considered the commencing-point of the West Coast settlements, which are springing up in every available valley along the coast. At Otaki, forty-seven miles from Wellington, by rail and road, there is a township, and a large Native settlement. At Manukau, Levin, and Shannon, thriving townships have arisen since the Manawatu Railway Company opened up the land round about, much of it being rich farming and grazing country. Between Shannon and the Manawatu River there is a large raupo or flax swamp, named Makurarua, containing at least 15,000 acres of fine alluvial soil, which is being gradually drained, and will probably at some future period become grazing-land.

Foxton, a township at the mouth of the Manawatu River, is a small shipping port, containing about 1,200 inhabitants. It is connected with Palmerston North by a branch railway, and is the outlet for a large area of good agricultural land.

Palmerston North is an inland town at the junction of the Wellington–New Plymouth and the Palmerston–Napier Railways, situated on a fine plain in the midst of a most excellent farming district at a point eighty-eight miles from Wellington, and 110 miles from Napier. Its population is now upwards of 6,500. It is lit with gas, and has a good water-supply. A fine bridge across the Manawatu River connects it with the Fitzherbert Block, a tract of rich agricultural land. Nine miles from Palmerston is the Township of Ashhurst, at the mouth of the Pohangina Valley, up which settlement has now extended for a distance of twenty-two miles. Several large farm-homestead association blocks have been selected up this valley.

Feilding, 104 miles from Wellington by rail, with a population of 2,298, is becoming one of the most important towns on the West Coast, as it is the centre of a very fine locality, and the outlet for a large tract of inland country, the forest on which is fast being felled. A coach-road connects it with Birmingham (Kimbolton) and Pemberton, about thirty-two miles distant. On the seaward side for a distance of twenty miles there is also much good agricultural land, extending

on the north-west to the Rangitikei River, and including the Township of Halcombe. There are several dairy factories established in the neighbourhood.

Marton, 123 miles from Wellington by rail, with a population of 1,100, one of the earliest of the West Coast settlements, is also the centre of an agricultural country. The Township of Bulls, on the north side of the Rangitikei River, lies between Marton and the coast. From Marton Junction the southern part of the North Island Main Trunk Railway extends up the Rangitikei Valley to Huntervilie, a good-sized township in the centre of a grazing district, and from thence as far as Mangaonoho, twenty-three miles from Marton; from there a coach-road has been made to Ohingaiti, beyond the Makohine, where a large viaduct has been built so that the railway traffic can be continued. From Ohingaiti the coach-road has been made to Turangarere, and from thence to Tokaanu, on Lake Taupo, in the Auckland District.

Wanganui, situated near the mouth of the river of that name, is the oldest town after Wellington, from which it is 151 miles by rail—the distance by sea being only a hundred and twenty miles. It is the centre of an excellent farming district, and has a considerable trade, and several manufactories. Near the mouth of the river are freezing-works, the meat from which is conveyed by lighters to the large English steamers which lie off the mouth of the river. The town is lit with gas, and has a good water-supply. Not far from it are some extensive railway workshops. Altogether it is a thriving place, with a population of about 7,300. The Wanganui River is navigable for a light-draught steamer up to Pipiriki, a distance of fifty-six miles, and for canoes a further distance of eighty miles to Taumaranui. A branch road extends from Pipiriki through the Waimarino Forest to Ohakune, and on to Karioi on the Murimotu Plains, thence by way of Turangarere and Moawhango to Napier.

Crown or Native Lands available for Future Settlement.

Kaitangata, Te Mara, and Kaiparoro Blocks.—These blocks, containing about 58,000 acres of second-class pastoral country, were opened for sale in September, 1893. The lower portions have been taken up and are being settled on, but the balance of the blocks, to the extent of about 35,000 acres, has been withdrawn from sale, with the object of having this area more fully explored, back lines laid off, road access provided for, &c. The remaining unsold portions of these blocks found suitable for settlement will be re-offered when a new scheme of subdivision has been approved by the Land Board.

Town Land.—Further sections in Raetihi, Ohakune, Mowhanau, Taihape, Mataroa, Makuri, Pongaroa, and Levin Townships will probably be opened for sale at Wanganui, Pahiatua, and Wellington on dates due notice of which will be given in the local papers.

About 20,000 acres, known as the Retaruke Block, on the Wanganui River. It is proposed to open this under the small grazing-run system during next summer.

Motukawa Block.—8,180 acres, situated to the north-west of Taihape, is now under survey, and will shortly be in the market.

Awarua Block.—There is an area of about 101,000 acres purchased by the Crown in this block available for future subdivision and disposal. This area for the most part consists of the rougher portion of the block, and will probably be occupied as pastoral country.

Forfeited Farm-homestead Sections.—A number of farm-homestead sections which have reverted to the Crown in the different Association Blocks in the Wairarapa South, Rangitikei, Wanganui, and other counties, are now being prepared for sale, and will be re-offered at early dates.

Due notice of these dates will be given in local papers, and sale lithos, with full particulars, will be published.

Improved-Farm Settlement Lands.

All the available land suitable for holding under the improved-farm conditions has now been allotted, but if any of the sections now held under this system should be forfeited, they will probably be ballotted for amongst applicants in the district

who are known to be of good character and likely to make good settlers. If further blocks of suitable land for this system are found, they will be cut up and opened on the same conditions.

Lands Open and Available for Ordinary Selection.

Waitotara.—The Te Ngaue Block, 1,546 acres of second-class pastoral land, is now open for selection in two small grazing-runs.

Waimarino.—A block of about 46,550 acres, on the Retaruke, Oio, and Kaitieke Rivers, has had roads surveyed through it, and portion of it lately surveyed will shortly be offered on small grazing-run system. There is an additional block of 27,000 acres, which is being surveyed, and will be offered as grazing-runs. 32,000 acres at the head of the Retaruke and Makino Streams have also been roaded. The rest of the Waimarino country, containing about 250,000 acres, is more or less broken, and will probably be opened later on as second-class pastoral country or small grazing-runs, to enable it to be taken up in larger sections.

A number of forfeited Farm-homestead Sections are now open for selection in the following blocks: Coonoor, Umutoi, Waimarino, and Wellington Fruitgrowers.

Tauakira No. 1 Block.—Nine sections, of an area of 10,253 acres, are open for selection on optional systems. This block is situated on Wanganui River, about 28 miles from Wanganui.

Two lots in Tiriraukawa and Momahaki Districts, 673 acres and 2,548 acres, are open for selection on small grazing-run systems.

Victoria College Endowment Block.—This block of 3,980 acres is subdivided into two lots, open for selection on the small grazing-run system.

Wanganui River Trust Endowment Block.—This block of 9,733 acres is subdivided into four lots, open for selection on the small grazing-run system.

Mangapapa 1c Block.—One section, 797 acres, is open for selection on optional systems.

Waimarino Block.—An area of 8,100 acres of Crown land and State forest is open for application as a grazing lease for a term of three years.

Pipiriki Township.—Leases of three allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Tokaanu Township.—Leases of one hundred allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Potaka Township.—Leases of fifty-one allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Parata Township.—Leases of three allotments for the term of twenty-one years, with right of renewal for a further term of twenty-one years, are open for application by tender.

Wharangi (Foxton Sanatorium).—Leases of twenty-three allotments for the term of fourteen years are open for application by tender.

Tongariro, Rangipopo, and Kaimanawa Blocks.—105,000 acres have been acquired by the Crown, but none of it is likely to be taken up for settlement for a long time to come.

"Crown Land Guides" and sale lithographs, giving full particulars of lands open for selection in this Land District, will be forwarded to any one on application to the Commissioner of Crown Lands, Wellington.

Native Lands.

Townships are now surveyed at Pipiriki, Tokaanu, Parata, and Potaka; sections in all of which are open for leasing under "The Native Townships Act, 1895." Steps are now being taken to place the Ohutu and Hokio Native Townships in the market.

The allocation of the Crown's purchases in the Raetihi, Tauakira, Maungakaretu, Mangapapa, Raketapauna, Rangiawaea, Ngaurukehu B., Motukawa Nos. 1

and 2, Te Tuhi Nos. 2 and 4, and Kahakaha Blocks, has been made by the Land Court; and the surveys of the land allotted are in hand, and they should be available for settlement soon after the surveys are completed.

The blocks under lease to Europeans contain about 475,000 acres, the principal being the Murimotu, Rangipowaiu, Owhaoko, Mangohane, and Ruanui, occupied by Mr. Studholme; and the Oroumatua, leased to Mr. Birch. Of others passed through the Native Land Court there are about 562,415 acres which are fit for settlement, the principal being the balance of the Awarua and the Motukawa, Raketapauma, Te Tuhi, Ahu-Ahu, Rangiwaea, and Puketotara Blocks in the central district, Raetihi in the Waimarino district, Tauakira, and Ohotu, on the Wanganui River, Tupapanui, Maraetaua, Taonui, and Kaha-kaha, between the Wanganui and Wanganehu Rivers. Those not suitable for settlement at present are the Te Hautu, Ohuanga, and Kaimanawa, on the east side, and the Oahukura on the west side, of Tongariro Mountain, containing an area of about 345,000 acres.

The Native lands which have not passed the Native Land Court contain an area of about 130,000 acres, the principal being the Mairekura, Okehu, Otumauma, Tawhitinui, and Papahaua Blocks, on and between the Wangaehu and Wanganui Rivers, and some others on the west side of the latter river.

Pastoral and Agricultural Industries.

The pastoral industry is by far the more important, the total area in grass in 1902 being 2,548,418 acres as compared with 87,256 acres under crop. Of the area in crop, 5,869 acres were in wheat, 21,785 in oats, and 36,404 acres in turnips or rape, the rest being in potatoes or other crops.

The following figures will show the average return per acre of grain, for the year 1902: Wheat, 29·50 bushels; oats, 37·75 bushels; barley, 35·40 bushels.

The area in sown grass now exceeds that in any other district in the colony, though the area under crop is very small as compared with either the Otago or Canterbury Districts. In April, 1901, there were 4,239,538 sheep; and in October, 1901, the cattle numbered 294,439, and horses 44,593. The total area in gardens is given as 2,376 acres; in orchards, 3,937 acres; and in plantations, 4,029 acres.

Dairy Industry.

Both soil and climate are well adapted for the production of butter and cheese, and hence we find creameries and butter-factories increasing in number very considerably each year, and the export constantly augmenting.

Forty-three butter and cheese factories were returned in October, 1901, as at work in the Wellington Provincial District.

Phormium Tenax.

The principal flax-mills working are at Featherston, Carterton, and Martinborough, in the Wairarapa, and at Foxton on the West Coast. This industry fluctuates greatly, in accordance with the price ruling for the dressed article. In 1901 twenty-five mills were at work, employing 580 men and 25 boys; the machines driven by water-wheel or engine working up to 365-horse power.

Timber Industry.

Sawmills are to be found in different parts of the district where the means of communication are sufficient, the timbers cut being principally totara and red pine, both of which are largely used in house construction and other works. Others of the native woods are very beautiful, but are utilised only to a small extent.

The principal mills are at Pahiatua, Eketahuna, Masterton, and Carterton, in the Forty-mile Bush and Wairarapa districts, and at Levin on the West Coast, besides which there are several mills in Wellington for dressing the rough material. In the whole district there were in 1901 sixty-six mills, of an aggregate of 1,114-horse power, engaged in this industry, employing 1,114 hands, the output of sawn timber being 41,375,471 ft., and the total value, including posts and rails, resawn timber, doors, sashes, &c., £210,589, which, next to Auckland, is the highest for any provincial district in the colony.

THE MARLBOROUGH LAND DISTRICT.

C. W. ADAMS, Chief Surveyor.

Boundaries.

The Marlborough Land District, occupying the north-east corner of the Middle Island, and containing about 2,635,000 acres of land, is bounded generally on the north and east by Cook Strait and the East Coast as far as the Conway River; thence by that river to its junction with the Towy River; from this point, by straight lines, rivers, and the summits of watersheds to the western side of Tennyson Inlet, Pelorus Sound. From the Conway to the Acheron River it abuts on to the Canterbury Land District, and from that river to Pelorus Sound it is bounded by the Land District of Nelson.

The widest part of the district is from Cape Campbell to Tophouse, a distance of about sixty-seven miles, and the extreme length from Cape Jackson to the Conway is 120 miles.

Physical Features.

The district throughout is generally mountainous, but none even of the highest peaks are covered with perpetual snow, although Tapuaenuku, the highest of the inland Kaikouras, attains an altitude of 9,462 ft. Of the Seaward Kaikouras, or Looker-on Mountains, the highest points are Kaitarau and Whakari, which are 8,700 ft. and 8,500 ft respectively. There are several lesser peaks, from 4,000 ft. upwards.

The view from Kahautara Bluff, south of Kaikoura Settlement, looking northwards, when the Looker-on Mountains are snow-capped, is said to be one of the finest in New Zealand.

Geologically, the district may be briefly described as follows: North of the Wairau River the rocks belong chiefly to the Upper and Lower Devonian series, with a belt of Silurian between them, embracing the country along the west of Queen Charlotte Sound to Cook Strait. Within these series auriferous deposits are found, and at present worked at Mahakipawa, Wakamarina, and Wairau Valley. In Endeavour Inlet an antimony-mine was worked for some time. But operations have been discontinued and the machinery removed. The country south of the Wairau River may be said to belong chiefly to the Carboniferous Age, with patches, along the coast and up the Clarence Valley, of Cretaceo-Tertiary and Lower Greensand formations; while along and between the Awatere and Clarence Rivers volcanic formation and numerous intrusive dykes occur. The Red Hills also, at the head of the Wairau Valley, are of volcanic origin.

Coal has been discovered in the neighbourhood of Picton, and in the Clarence Valley, but none has been as yet successfully worked within the district. A narrow belt of Tertiary limestone, suitable for building purposes, extends, with small interruptions, from Cape Campbell to the boundary of the Canterbury Provincial District. The Marlborough land may be divided into three classes: Open land, generally covered with associated grasses; forest-land; and intermediate, or land partly forest, partly covered with scrub, fern, or other rank vegetation. This original condition of the soil naturally gave rise to a localisation of industries, and a very unequal distribution of settlement. Thus the open country was taken up for pastoral purposes; in the forest country the timber industry was developed, and the intermediate land passed into the hands of farmers. Though agriculture is now extending into the pastoral and forest country, and considerable areas of forest-land have been cleared and laid down in grass, the portions of the district characterized by these respective industries are still well defined.

In the northern part of the district, bounded by Cook Strait, numerous deep fiords and bays run far into the land. The principal of these are Pelorus and Queen Charlotte Sounds, Tory Channel, Port Underwood, and Port Gore.

These Sounds are very picturesque, but the hills surrounding them are not so rugged and precipitous as are those of the thirteen celebrated Sounds on the west coast of Otago and Southland.

Though generally steep, the land is not too rough to be used for pastoral purposes, and nearly all the land in the Sounds is occupied by thriving settlers.

Pelorus Sound, the most extensive and picturesque, is thirty-four miles long, following the course of the main channel, with the Town of Havelock at its head. There are many bays and inlets branching off in all directions; the largest of these is Kenepuru Sound, fourteen miles long. Pelorus Sound, including its branches, has a shore line of over 300 miles in length, not counting islands.

Queen Charlotte Sound is the next in length, being thirty miles from its entrance to its head; it also has many bays and inlets, one of which is Picton Harbour, twenty-five miles from the entrance.

Tory Channel is ten miles long, and forms the most direct line of communication between Picton and Wellington. The distance from Wellington Wharf to the entrance of Tory Channel is about forty miles, and about twenty more to Picton.

The shore-line of Queen Charlotte Sound and Tory Channel is over 200 miles in length. The entrance of Queen Charlotte Sound is about twenty miles distant from that of Pelorus Sound, and this latter is about twelve miles from the French Pass. Generally there is deep water in all the sounds and bays, and good anchorage can be found near the shore. The country is hilly everywhere in the neighbourhood of the Sounds, the highest point being Mount Stokes, 3,951 ft. above sea level.

Rivers.

Four considerable rivers, the Wairau, Awatere, Clarence, and Conway, rise towards the western boundary of the district; the two former, running east and north, fall into Cook Strait; the two latter, taking a southerly and easterly course, discharge into the sea on the eastern side of the Island. These rivers water large and fertile valleys, but none can be entered by vessels except the Wairau, which is navigable for small steamers for about ten miles from its mouth.

Plains.

The Wairau Plain, containing about 65,000 acres, on which stands Blenheim, the capital of Marlborough, is the principal block of agricultural land within the district. The soil, generally good, is, on the lower or seaward side of the plain, extremely fertile, especially in the neighbourhood of Tua Marina, Spring Creek, and near Blenheim, which is surrounded by numerous gardens, with rich deep mould, and well sheltered with trees. The average yield of wheat for the plain is about 25 bushels per acre; of oats and barley, 35; of peas, 30; and of potatoes, 10 tons per acre. Hops have been successfully grown for many years in the neighbourhood of the town, but, owing to the high price of labour, their cultivation has not extended. The plain, traversed in all directions by good macadamised roads, and dotted over with numerous comfortable homesteads, standing in clumps of trees amidst well-cultivated fields, has already an old-world appearance. More than half the population of the Marlborough Land District—about 13,000, according to the last census—is centred in the Town of Blenheim and on the Wairau Plain. Besides this plain there are several thousand acres of terrace flats and valleys along the larger rivers, notably at Starborough, on the Lower Awatere.

Lakes.

There are not any lakes worthy the name. The largest is Kapara te Hau, more familiarly known as Grassmere, situate on the coast between the Awatere River and Cape Campbell. It is about three miles in diameter, and very shallow, being, indeed, no more than a lagoon, as during a dry season there is little or no water in it.

There are two other lakes of small size, viz.,—Lake Elterwater, four miles south of Lake Grassmere, and Lake McRae, situate in the open country between the Awatere and the Clarence Rivers.

Forests.

The portion of Marlborough north-west of the Wairau River, extending to the boundary of the Nelson Land District, and including the County of Sounds, in all about 280,000 acres, was originally covered with dense forest. In the valleys and on the lower hill-slopes, rimu, kahikatea, matai, totara, miro, and tawa were the principal forest-trees. The higher portion of the hills and steep spurs are clothed with the various species and variety of birch (beech), to which along the shores of the Sounds were added pukatea and kohekohe, the latter locally called cedar.

Since 1860 sawmills have been at work in various parts of the district. Thirty-two mills have been erected, and have worked for longer or shorter periods. Havelock, on the Pelorus Sound, is at present the headquarters of the timber trade.

The hills along the shores of the Sound will, for many years, furnish birch sleepers. There are other timbers left in places, but nowhere sufficient to justify the erection of a mill, unless pukatea wood, hitherto neglected, could be utilised. It is a light, tough timber, well adapted for boat-building and for packing-cases. The quantity of pine timber remaining in the Kaituna and Onamalutu Valleys is small, but there is a good supply of birch and other wood, suitable for fencing and firewood. On these valleys the Wairau Plain is mainly dependent for timber.

The Pelorus Valley, with its tributaries the Wakamarina, Rai, Ronga, and Opouri Valleys, still contain about 300,000,000 ft. of convertible timbers, exclusive of the birch, of which there is a large amount of the best quality on the hills and terraces. The Wairau, Blenheim, and other districts extending southwards must depend for the future on this source for all their building material.

In the neighbourhood of Kaikoura, along the base of Mount Fyffe, and in the Hapuku Valley, there is another small block of forest-land in which three small sawmills have been erected. The quantity of timber suitable for sawmill purposes in this block is very limited, but it will furnish the neighbouring country with firewood and fencing for many years.

Soils and their Uses.

The Wairau Plain, which is the principal block of agricultural land, has been already dealt with. The second agricultural centre is in the neighbourhood of Kaikoura. The land extending along the base of Mount Fyffe, between the Kohai and Hapuku Rivers, about 13,000 acres in extent, is held in small or moderate-sized farms; the soil is good, the block known as "The Swamp," between Mount Fyffe and the Peninsula, being particularly rich. In the Pelorus, Kaituna, and Onamalutu Valleys, and in the Sounds, settlers following in the wake of the sawmills have already converted much of the land worked over into grazing-farms. The land is of three descriptions—alluvial flats, terraces, and hill-sides. On the flats in the larger valleys the soil is rich, producing heavy crops of oats, peas, beans, and potatoes, wherever it has been brought into cultivation. The terrace-land varies much in quality, but generally grows good grass, as do also the hills on which tawa formerly grew; the birch country being very barren. On the small bush-farms cattle-grazing is the chief pursuit. Out of 12,000 head kept in Marlborough, 4,300 belong to the forest country.

Grazing.

About 1,680,000 acres of the Marlborough Land District are at present devoted to keeping sheep. The leaseholds in the northern parts of the district contain a large extent of scrub- and fern-covered country, now producing little or no food for sheep, but capable of improvement. The total number of sheep depastured is 821,812, distributed as follows amongst the counties into which the land district is divided: Marlborough County, 515,022; Sounds County, 149,548; Kaikoura County, 157,242. On the natural pasture of the open country merino sheep are kept almost exclusively, the land carrying from half to one sheep per acre. In the forest country, on sown grass, the land keeps from two to four crossbred sheep per acre. Along the shores of the Sounds large areas of hill-land have been taken up on lease, and are now being cleared and laid down in grass expressly for keeping

sheep, but generally throughout the forest country the holdings are small or of moderate size, hence this is, after the Wairau Plain, the most populous portion of the district. The export of wool during last year amounted to about 12,000 bales.

Industries.

Gold-mining has been carried on for some years, principally at Mahakipawa, Wakamarina, and Wairau Valley. At present not much gold is being obtained, although there are now strong indications of a great improvement in the gold-mining industry.

One dredge is at work in the Wakamarina River, with satisfactory results; but the one at Top Valley has suspended operations in the meantime, pending alterations in the machinery. Another dredge will start in this valley shortly.

Nine sawmills are at work within the district: one at Kaikoura, and the others in the Pelorus, Kaituna, Onamalutu, and Wakamarina Valleys, and in the Pelorus and Queen Charlotte Sounds. The principal one is Messrs. Brownlee and Co.'s, in the Pelorus Valley, their tramway being about thirteen miles long, the output last year being about 2,765,000 ft. Messrs. Brownlee and Co. have sixty men employed, and keep two vessels running between Havelock and Lyttelton.

During the year the flax industry employed eleven mills, and the quantity of hemp shipped was 1,100 bales and 540 bales tow.

In connection with one of the mills a rope-factory has been established, in which binder-twine made of short flax or tow is the main product.

There are two flour-mills at work owned by Messrs. Redwood Bros. The one at Spring Creek is a complete roller-mill, driven by water-power, and can turn out about 14 tons of flour in twenty-four hours. It is electric-lighted, and the sack-working machinery is driven by electric motor. The other mill is also worked by water-power, and is situated near Blenheim.

There is a dairy factory at Spring Creek which contains all the latest improvements in machinery; 15 tons of butter were produced in 1901.

There is a first-class cheese-factory at Tuamarina. Last season 80 tons were turned out. There are also cheese-factories at Kaikoura and Havelock.

Climate.

Marlborough possesses one of the finest climates in the world; and at Blenheim it is fine weather nearly all the year round. There is almost a total absence of the boisterous winds that so frequently visit Wellington.

The original distribution of the open and forest lands was entirely due to climatic causes. At Cape Campbell, one of the barest places in the district, the annual rainfall is only 23·25 in.; in the Pelorus Valley, the centre of the forest country, it is over 65 in. This difference between the climates of the north-western and south-eastern portions of the district explains why the artificial pasture-land, when compared with the natural pasture, supports such a large amount of stock. Winter and spring are the wettest seasons, hence the dry climate is not unfavourable for agriculture. Wherever the soil is suitable, crops sown in winter and harvested in early summer can be successfully grown. Everywhere near the coast the range of temperature, considering the latitude, is very small. The thermometer seldom falls below 30 deg., or rises above 78 deg. Along the shores of the Sounds the mildness of the winter, owing to the curious distribution of land and water, allows lemons, oranges, passion-fruit, figs, and other sub-tropical fruits to be grown in favourable situations. On the lower hills and terraces of the forest country the chestnut (*Castanea vulgaris*) grows rapidly, and commences to bear fruit in five or six years. A few trees planted in the Pelorus Valley some twenty years ago are now yielding annually about 2 cwt. of nuts a tree. In all parts of the low country the common English fruit-trees—apple, plum, pear, cherry, &c.—yield abundantly, the fruit, owing to the clearness of the atmosphere, being of excellent quality. In the high country, where snow falls occasionally during winter, red, white, and black currants can be produced in such quantities that with little labour they might be made an article of export to the warmer parts of Australia.

Towns.

The chief town, Blenheim, is situate on the Wairau Plain, at the junction of the Opawa and Omaka Rivers—a third river, the Taylor, would join at about the same point were it not that when not in flood it disappears beneath the surface, about three miles south of the town. Blenheim has been termed a miniature Christchurch, doubtless from its extreme flatness. Considering this, its streets are not so straight and wide as they should be. The Government Buildings, which comprise the Post and Telegraph Offices, Lands and Survey Offices, Courts of Justice, &c., form a handsome edifice in the centre of the town, which is well planted with deciduous and evergreen trees. It is about eighteen miles and a half from Picton by rail, and about nine miles from the sea by the Opawa River, which is navigable for small steamers. Blenheim is lit with gas, and supplied with water, principally by artesian wells. The population is 3,222.

The next town in importance is Picton, the principal port, only fifty-three miles by sea from Wellington. This little town, both in position and appearance, may be said to be the antithesis of Blenheim, being most picturesquely situated at the head of Queen Charlotte Sound, and nestling among hills, some of the higher ones still densely covered with birch and other forest. There is frequent communication with Wellington and Nelson by steamers averaging 500 tons, and vessels of the largest size can lie at the wharf at low-water. The direct exportation of frozen meat from Picton commenced in 1892, when 16,433 carcases were shipped. The Christchurch Meat Company exported from Picton for the year ended 31st March, 1902, mutton, 17,340 carcases, and lambs, 35,945 carcases. Picton possesses a malting establishment also, producing for export, as the excellent quality of the barley grown on the Wairau Plain insures a ready market. A small quantity of oysters, mostly procured in Queen Charlotte Sound, is annually exported from Picton; with culture the supply might be almost indefinitely increased, many of the sheltered bays in both sounds being well adapted for the purpose. What is now being done along the Marlborough coast is a mere trifle compared with what might be accomplished if capital and knowledge were brought to bear on the fishing industry. Around the whole coast, from the mouth of the Conway to near the French Pass, the sea abounds in fish. Within the Sounds and amongst the islands of Cook Strait, hapuku, schnapper, moki, barracouta, raturi, kahawai, and rock-cod are extremely plentiful. Immense shoals of the southern herring (*Clupea sagax*) and of anchovies (*Engranlis encrasicholus*) frequent the inlets at certain seasons of the year, and quantities of fresh fish are exported from thence to various places within the colony. As steamers arrive at and leave Picton almost daily, shipments can be made without delay to all parts. Picton possesses a good gravitation water-supply. Its population is about 900 persons.

Havelock, situate at the head of Pelorus Sound, is, as has been already stated, the present headquarters of the timber trade, Messrs. Brownlee and Co.'s steam saw-mill, at the mouth of the Pelorus River, being only a mile or so from the town. Between Picton and Havelock there is a mail service twice a week, *viâ* Cullensville, on the Mahakipawa Gold-fields. The population of Havelock is about 300 persons.

The Town of Kaikoura, the greater part of which is built on a raised shingle-beach, is situate at Kaikoura Peninsula, near the southern boundary of the district. The town, with the adjoining settlement of small farms, forms one of the most picturesque spots in New Zealand, lying as it does under the Seaward Kaikouras, or Looker-on Mountains. At the back of the town the peninsula, which is composed of Cretaceo-tertiary limestone, rises abruptly for about 100 ft., and affords splendid sites for dwelling-houses. Kaikoura is connected with Blenheim by a weekly coach service, the distance being about ninety-five miles. There is also direct steamer communication with Wellington and Lyttelton. The population of the town is about 500.

Roads and Railways.

The only railway is that between Picton and Blenheim, about eighteen miles and a half in length. The train, starting from Picton, runs twice a day. The railway has been completed for a distance of fifteen miles and a half south of Blenheim, as

far as the Township of Seddon, and, although not formally opened, trains run to that township several times a week; and a substantial railway and traffic bridge over the Awatere River, costing £22,500, is a very great boon to the district.

The Main North Road to Nelson, distant seventy-eight miles, is a good metalled road nearly the whole way. It runs up the Wairau Valley from Blenheim for about six miles, crosses the Wairau River into the Kaituna Valley, which it follows as far as Havelock—about twenty-eight miles. It then runs up the Pelorus and Rai Valleys, and ascends by easy gradients to the Brown Saddle, where it crosses the boundary into Nelson. An excellent coach-service—probably the best in the colony—has been established for some years, the coach running to and from Nelson on alternate days, covering the distance in eleven hours, and another coach-service twice a week has been established between Blenheim and Havelock.

The Main South Road, running over the Taylor Pass into the Awatere Valley, and through the Starborough, Flaxbourne, Kekerangu, and other properties, connects Blenheim with Kaikoura and the south, and is a good road during dry weather, although it might be much improved in places. Since the acquisition of the Starborough Estate by the Government the bulk of the traffic now goes *viâ* the Redwood Pass, as it is a more direct route to the town of Seddon.

The portion between the Clarence River—over which a fine bridge was built some years ago—and the Hapuku River, runs along the coast under steep and picturesque hills covered with forest. A road to the south of Kaikoura, between the Kahautara and Conway Rivers, is now completed and forms part of the main Cheviot–Kaikoura Road, and, besides its great usefulness in opening up the country through which it passes, will also become a favourite route for tourists, as in many places it passes through most picturesque scenery.

A good road has been formed up the Wairau Valley, passing through the Bankhouse, Erina, Lansdowne, Hillersden, and Birch-hill properties, and connecting with Tophouse, just outside the boundary, and distant fifty-six miles from Blenheim. At Tophouse there is an hotel and a telegraph-station, and from thence a good road leads to Belgrove on the Nelson Railway line.

A coach runs twice a week between Blenheim and Wairau Valley—twenty-five miles—where there is an hotel, a post- and telegraph-office, and one or two stores.

There is also a good cart-road running up the Awatere River—which it crosses and recrosses several times—as far as Molesworth Station, about seventy miles from Blenheim. Between these points there is a weekly coach and mail service.

There are other minor roads and bridle-tracks throughout the district too numerous to specify.

Crown Lands.

The area of Crown lands at present available for settlement is about 140,000 acres, but of this area 100,000 acres are of very poor quality, being chiefly the summits of high, rugged country. The balance of available area lies principally in the Pelorus, Rai, and Wakamarina Valleys, and in the Sounds, and will doubtless be readily taken up when thrown open for selection.

THE NELSON LAND DISTRICT.

W. G. MURRAY, Chief Surveyor.

General Physical Features.

The Nelson Land District comprises the north and north-western portion of the Middle Island, the greater part being high and mountainous, and on the western and inland ranges covered with dense forest to the bush-limit, at from 4,000 ft. to 4,500 ft. Cape Farewell, the northernmost point, is situated at the western entrance of Cook Strait, on the south side of which lie Golden or Massacre Bay, and Tasman Bay, more commonly called Blind Bay. The former derives its name from the massacre of a boat's crew belonging to Tasman, who visited it on the occasion of his discovery of New Zealand in 1642. At the head of the latter, which has a depth of fifty-four miles from its entrance, stands the town of Nelson. From Separation

Point, on the western side of Blind Bay, a range of mountains from 3,000 ft. to 4,000 ft. in height extends southward to Mount Murchison. It consists of a granitic formation, with slate, limestone, and sandstone belts. From Pelorus Sound, on the east, commences another range—a portion of which is serpentine, forming a mineral belt immediately south of Nelson City. It reaches an elevation of 6,000 ft., and runs in a south-westerly direction to the St. Arnaud Range, terminating in the Spencer Mountains, a large central mass attaining a height of 8,000 ft. above the sea-level. To the westward of the Spencer Ranges and those on the further side of Blind Bay are the Brunner, Lyell, Marine, and Tasman Mountains, from 5,000 ft. to 6,500 ft. in height. Still further westward along the coast are the Paparoa, Buckland Peaks, and Papahaua Mountains, about 4,500 ft. at their highest point, and the Whakamarama Range, extending from Rocks Point to Cape Farewell. There are also a number of isolated mountain-masses here and there through the district.

The inland Spencer Mountains are the source of the principal rivers of the district south of the Buller River, and are thus described by Sir Julius von Haast: "On the southern slopes of this wild alpine-stack we find the principal sources of the Grey, or Pohaturoha; on its north-east side the sources of the Wairau; on its eastern side those of the Acheron and Clarence; and in the deep recesses of these snow-clad giants those of the Wajau-ua, or Dillon: so we may say that, with the exception of the Takaka and Aorere, which fall into Massacre Bay, the Wangapeka and Motueka, which run into Blind Bay, the Karamea and smaller streams, which reach the sea on the West Coast to the north of the Buller River, all the rivers of any size in the northern part of this island take their rise in this magnificent chain."

Rivers.

The Buller River (Kawatiri) has its source at a point about sixty miles south-west from Nelson, where it flows out of the beautiful alpine lake Rotoiti, lying 1,800 ft. above sea-level at the foot of the lofty St. Arnaud Range. This river breaks through the massive mountain chains of the interior in a transverse or easterly direction, forming, where it receives no tributaries, a succession of magnificent rocky gorges, and, after a course of about one hundred miles, finally discharges its waters into the ocean on the West Coast. The Gowan River, a tributary, has its source in another exquisite lake, Rotoroa, 1,623 ft. above sea-level. Other tributaries of the Buller are: the Matakitaki, Maruia, Owen, Matiri, and Inangahua, all of which take their rise in the snowy ranges.

Lakes.

The lakes of the district are alpine in character, surrounded by grand mountain and bush scenery. The principal are: Rotoiti, lying east, and Rotoroa south-east, of Mount Murchison; Matiri, to the west of Owen Range, 980 ft. above the sea.

Plains.

The Waimea Plains, near Nelson, with the Lower Motueka, Riwaka, and Takaka Valley lands, formed part of the original settlement of the New Zealand Company, and are occupied mostly by small settlers. Inland are the Tiraumea Plains, 1,100 ft. above sea-level, and the Maruia, 1,300 ft. These are, together, about 30,000 acres in extent. They are surrounded by high mountains heavily timbered, and the land is of only second-rate quality. On the West Coast the level lands are Totara Flat and Ikamatua Plains, Mawhera-iti, and Inangahua Valleys, lying on the eastern flanks of the Paparoa coastal range. There are also open *pakihis* at Addison's Flat, on the south side of the Buller, and low swampy lands on the north side; northward is the heavily timbered country of the special settlement at the mouth of the Karamea.

Forest.

The area of the reduced district is estimated at 4,686,000 acres, of which the open land under 2,000 ft. in altitude is, approximately, 915,000 acres; the area of forest-land under 2,000 ft., about 1,382,000 acres; and the open land above that altitude,

about 581,000 acres, inclusive of bare mountain summits. The wooded country is estimated at 3,200,000 acres; of this area probably about 900,000 acres is scrub and stunted bush; and of the remainder, not 700,000 acres at the outside would be available for clearing. The timber on the western side consists of red- and white-pine, matai (or black-pine), totara, kawhaka (or cedar), rata, and occasional silver-pine, besides black- and red-birch (*Fagus fusca*). These varieties are also found, but in smaller areas, on the eastern side; birch preponderating. A large amount of timber is used in the mining industry for props and planking, and throughout the districts generally for shingles, fencing, firewood, sleepers, &c.

Agricultural.

Nelson has little land suitable for agriculture, most of it already taken up. On the Waimea Plains is grown excellent barley, a small quantity of which is exported. Oats and chaff are sent in large amounts to the West Coast and elsewhere. Hops also form one of the chief exports. Wheat, maize, rye, and root-crops of most varieties are grown, and fruit is plentiful. The weekly wage of a farm-labourer is 20s. with board; without board he would receive 6s. a day. Ploughmen can get 20s. per week with board; without, 7s. 6d. a day.

Pastoral.

The total area of pastoral lands held under the Crown by 73 tenants on the 31st March, 1902, amounted to 313,960 acres. As the agricultural land is limited, settlers are turning their attention to the timbered mountain-slopes for grazing purposes. These, when the timber is felled and burnt, and the ground sown with suitable grass, will, after three to four years, carry about two sheep to an acre on fair soil, and more on the limestone country. The cost of felling and burning green timber is from 15s. to 20s. per acre; cost of mixed grass-seeds and sowing, about 15s. per acre; and a good paling-fence on ordinary bush-lands with double No. 8 wires at top and bottom, with ½ in. palings and 7 in. posts sunk 2 ft. in the ground, can be erected at about 12s. per chain.

Mining.

The western side of the Nelson District was a *terra incognita* till about the year 1863, when gold was first discovered in large quantities. Miners flocked in at first from the other goldfields in New Zealand, then from Australia, California, and other parts of the world, until in 1865 the whole coast-line was peopled from Broken River in the north to Jackson's Bay in the south. Mining, at first altogether alluvial, developed into quartz-reefing, and hydraulic-sluicing of large areas. The agricultural lands about the Grey and Inangahua were taken up and cultivated; and, as mining became a more settled industry, the miners occupied and tilled the non-auriferous alluvial flats in the many valleys: hence at the present time a number of homesteads are scattered throughout the district.

Reefton and its neighbourhood forms one of the chief quartz-mining districts in New Zealand; and the West Coast, including Westland, has produced about 45 per cent. of the total gold raised in the colony. The oldest alluvial field is at Collingwood. Among other minerals found in the district are: silver, copper, chrome, antimony, manganese, and hæmatite. Extensive deposits of coal are found on the West Coast, within the areas of the Grey and Buller Coalfields Reserves. Coal is also found in Collingwood, in Blind Bay, and in West Wanganui Inlet; and there are numerous smaller areas of coal-bearing strata here and there throughout the district. The output from the mines at work within the district during the year ending 31st December, 1901, was 463,300 tons. Copper-ore is found in a serpentine rock-formation near Nelson, but the companies which have worked the ore have not hitherto been successful—the last one, "The Champion," failing from want of sufficient capital. Deposits of chrome-ore are also found here. Silver-ore has been worked in the Collingwood District; and at Pūrapara, in Blind Bay, there are widespread deposits of hæmatite iron-ore, combined with limestone and coal, waiting only for capital to develop them.

It will be readily gathered from the above brief description that mining is the chief industry of the Nelson District. A great many river and beach-dredging claims have been taken up of late, and in many instances a large amount has been expended in the purchase and erection of dredges; but, as the majority of these have only recently started work, no idea can at present be formed as to the ultimate success of these ventures.

Sawmilling, &c.

The timber industry in this district has now become a very important trade. There are forty-five sawmills working, and during the past year about 9,000,000 ft. of various kinds of wood, principally red- and black-pine, have been cut in this district for export, and silver-pine has been largely in demand for railway-sleepers for home consumption.

A small industry in flax is also carried on.

Towns.

The chief town is Nelson, situated at the head of Blind Bay, in 41° 16′ S., and surrounded on all sides, except the north, by mountains reaching an elevation of 3,500 ft. With a mean temperature of 54·8° Fahr. it possesses a climate almost unequalled for its beneficial effects on invalids suffering from pulmonary diseases. There are many picturesque spots in the suburbs, and the city itself, with its cleanly-looking buildings and well-kept gardens, is one of the most charming spots in New Zealand. There is an old-established Boys' College, a High School for Girls, and a School of Music, besides Government and other schools. The Anglican Pro-Cathedral, built on the summit of a central hill, memorable as being the site of fortifications erected in the early days of the settlement for defence against an expected attack of the Natives, is a striking feature. The Roman Catholic Church, Convent, and school-buildings cover a large extent of ground. There is also at Stoke, a small village three miles from Nelson, a central Catholic Orphanage, surrounded by grounds of considerable area. There is a good supply of excellent water from a reservoir in the hills at the back of the town, and the streets are well lighted with gas. The several Government departments are housed in one roomy building, containing a large hall used for Supreme Court sittings and other public purposes. Nelson has a small natural harbour, formed by a boulder-bank running for eight miles parallel to the shore, deep enough at high tide to admit vessels of 1,000 tons burden. It is a port of call for the Union Steamship Company's coastal steamers, and has a small local fleet plying between the West Coast, Blind Bay, Picton, and Wellington. The town is reached from the eastward by a good main road from Marlborough. A railway-line has been constructed up country to the southward for thirty-three miles, passing through the farming villages of Stoke, Richmond (borough), Brightwater, Wakefield, Foxhill, and Belgrove. Leaving for the West Coast by a good main road, the traveller starts from the Motupiko Station on one of Cobb and Co.'s coaches, and proceeding up the Valleys of the Motupiko and Clarke, crosses the Hope saddle and thence down the Hope Valley to its junction with the Buller, about sixty-seven miles from town. He then enjoys a succession of views of mountain-gorge scenery, and, after traversing a gorge of seventeen miles in length, arrives at the Lyell, 107 miles from his starting-point. This is an alpine township, in a small quartz-mining neighbourhood. Here is a fine cast-iron girder bridge, spanning a rocky gorge of the Buller, and springing boldly from a bluff on the northern side. At 116 miles the junction of the Inangahua with the Buller is reached, the main road continuing to Reefton, with a branch road twenty-eight miles to Westport, which for twelve miles passes through some of the grandest river-gorge scenery in New Zealand.

Westport, the town next in importance to Nelson, is situated at the mouth of the Buller River. The harbour is sheltered from southerly gales by Cape Foulwind and its outlying rocks, and is accessible in nearly all weathers. A large sum has been spent on a system of harbour-works, designed by the late Sir John Coode. Westport is the place of shipment for the coal-mines lying northward as far as the Mokihinui River. The character of this coal for steam purposes stands almost unrivalled.

The long line of coal-staiths and wharves on the northern bank of the river, with a fleet of steam-colliers loading alongside, does not fail at once to impress a visitor with a sense of the importance of the trade. Though much has already been done, yet the industry, from the extent of the coal-bearing strata, is capable of much larger expansion when the necessary capital can be found. The Westport–Ngakawau Railway to Mokihinui, connects with the mines and conveys the coal to the port. At the foot of the Mount Rochfort plateau, nine miles from Westport, is Waimangaroa, and on the plateau itself is Denniston—both coal-mining villages. The latter, built at an elevation of 1,960 ft., is said to be the highest township in New Zealand. On a clear day it is well worth a visit, for the sake of enjoying the magnificent panoramic view of the southern Alps, which reach their highest point in Mount Cook, 12,349 ft. high, about 100 miles south. South of Westport are the alluvial gold-mining centres of Addison's Flat, Croninville, Nine-mile Beach, and Charleston.

From the Inangahua Junction, the main road continues southward through the Inangahua Valley, passing through cultivated lands, which are being gradually won from the heavy bush, and at a distance of 136 miles from Nelson reaches the township of Reefton. Here, as at Westport, are good hotels, and, as in every one of the larger coast towns, a hospital receiving a Government grant-in-aid. This town was the first in New Zealand to be lighted by electricity. Through the Midland Railway Company's extension of the Grey–Brunner Government line, Reefton is now connected by rail with Greymouth, from whence it is for the most part supplied. About two miles inland from Reefton is Black's Point mining township, with several batteries at work in and about the place, a visit to which is generally paid by tourists wishing to see something of the gold-mining industry. Other small mining townships are: Boatman's, Capleston, and Antonio's.

Leaving Reefton by rail, and passing into the Grey Valley through a short tunnel, and by a bridge over the Grey River, Totara Flat is reached, nineteen miles distant. This brings us into the Westland District, to which refer for the balance of the journey to Greymouth.

Roads, Tracks, &c.

Situate on the coast, fifty miles north of Westport, is the Karamea Special Settlement, principally settled from the Nelson and Motueka Valley districts. This part of the district contains some excellent but heavily-timbered land, and is reached from Westport by a road, connecting with the Westport–Ngakawau Railway at the Mokihinui River. A bridle-track, also, connecting with Collingwood and Golden Bay, is nearly completed by the Government. This track passes along the coast northwards, thence up the Heaphy Valley to the Golden Downs, and down the Aorere Valley to Golden Bay. Here again is another coal-basin, which, though of inferior value to the older deposits on the western side, is likely to become of importance, having at the present time one mine in full work. Another coal-basin exists at West Wanganui and Pakawau.

In the Aorere Valley, of which Collingwood is the port, alluvial mining is still found to be payable, and the country contains some valuable timber in the upper part not yet utilised. Nineteen miles south, in Blind Bay, lies the small port of Waitapu, from which a considerable amount of sawn timber is exported, drawn from the Takaka Valley, and brought down by a steam tramway from the upper mills. From the head of this valley the main road is carried over a pass in the Pikikirunga Range, 3,476 ft. high, through the villages of East and West Takaka, Riwaka, Motueka, and Moutere to the town of Richmond, eight miles from Nelson. Inland are also the villages of Ngatimoti, Dovedale, Tadmor, and Sherry, each the centre of a number of small farms, and all connected by fairly-good dray-roads.

An inland road, partly bridle-track and partly dray-road, has been made from Nelson to Canterbury, by way of Tophouse, Wairau Gorge, Tarndale, Clarence Valley, Jollie's Pass, and the Waiau Plains. Here there are hot mineral springs, much visited by persons suffering from rheumatism and skin-diseases.

Crown Lands.

About 3,000,000 acres of Crown lands still remain unoccupied in the northern part of the Nelson District; they consist principally of high bush-country, with occasional patches of good valley-lands, the greater part being classed as second-class land. The area open for selection to date comprises 13,367 acres of surveyed lands, and 248,730 acres unsurveyed lands, of which the location, nature of soil, &c., have been briefly described in the foregoing pages.

THE WESTLAND LAND DISTRICT.

G. J. ROBERTS, Chief Surveyor.

The Westland District occupies the central portion of the western watershed of the Middle Island, joining Canterbury on the east; its north and south boundaries with Nelson and Otago being the Porarari, Otuitutu, Grey, and Awarua Rivers. The mean length is 250 miles, and its average width 27 miles. The area is 6,750 square miles, composed, for the most part, of the great central snow-clad mountain chain and its out-running ranges, intersected by narrow bush-clad valleys, and subsiding westward into undulating plateaux, river-straths, and shelving coasts.

Physical Features.—Mountains.

The great dividing range which constitutes the eastern boundary from the head of the Grey River to Mount Aspiring presents a magnificent façade of snow- and ice-clad summits, representing every aspect of mountain grandeur, such as spires and battlements of rock protruding from ice and snow; precipices of enormous height, with cascades; drifted expanses of snow-fields, feeding glaciers; cañons, and ravined foot-hills covered to the top with forest.

Rivers.

A few of these lead from the foot-hills, and are of small volume; the others are snow-born streams descending from the central range, at first in narrow gorges amongst the mountains, but spreading widely on reaching the sea-board country. They are shallow shingly streams in winter, but swift deep rivers in summer. In the northern district all the larger rivers are bridged; and southward, ferries are placed on all the main streams, which, from the melting of the snow, are practically unfordable from September to January.

The Grey River (Mawhera), also discharging its waters on the West Coast, takes its rise in Lake Christabel, near the western flank of the Spencer Range. It has a very large basin, and numerous tributaries, of which the Ahaura is the chief.

Lakes.

The principal lakes are Lake Christabel, on the western flank of the Spenser Mountains; and Lake Hochstetter, at the head of Nelson Creek.

A considerable and varied number are dotted over the district, no two being alike, but varying in character: comprising mountain tarns; coastal tidal lagoons; shallow reedy sheets; deep mountain-girt waters—all more or less forest-locked, and presenting every form of lacustrine beauty. In conjunction with their effluents they form valuable water-ways for light transport to adjacent districts.

Forests.

Generally speaking, the whole of the district is covered with dense forest, from the sea-beach to the grass-grown tops of the high ranges, even the gaunt, broken mountain-faces being wrapped with exuberant foliage. The varieties of trees differ considerably according to soil and altitude. Kamahi and rata are the chief timbers, very useful for firewood, and, spread over the whole country, constitute an almost inexhaustible supply. Rimu is the chief milling timber, and this also is

widely distributed from the sea-board to the interior uplands. Valuable stretches of white-pine belt the low-lying depression of the coastal lands, and the same may be remarked concerning the imperishable silver-pine. Clumps of black-pine of good quality are met with, also rarer patches of marketable totara; while serviceable cedars are scattered along the flanks of the inland ranges and all over the lower hills and plateaux. The approximate area of forest equals 2,394,951 acres, of which a considerable portion carries timber fit for the sawmill; the remainder is mainly firewood and mining timbers.

Soils.

The high pastoral uplands have a coating of rich moulds, and this continues fairly good down to the heavy timber lands. The alpine forest is readily cleared, burns clean, and imported grasses grow luxuriantly, cocksfoot being the best, as it withstands fire and frosts. The lower flanks of the mountains hold a thinner soil, which at present hardly repays the heavy labour of felling; while the lower heights are somewhat abrupt and unfitted for cultivation. A margin, varying in width, of fertile slopes and fans fringes the bases of the hills, and, having a natural drainage, constitutes an area of excellent agricultural land.

The upland soils of the coastal undulations and terraces are light loams of moderate fertility, which rest upon transported gravels, the drifted accumulations of eroded hills. On these plateaux are numerous "pakihis," or natural clearings, which are mostly extensive tracts of swampy lands, with a peaty soil resting on thin layers of impervious clay, and non-porous gravels, or, in a few cases, on impacted glacial moraines: these formations all overlying loose drifts. The reclamation of these areas is only a matter of time, as the bulk of them are quite drainable.

Stretches of good alluvium border the rivers, streams, and sea-coast, and form the favourite location for settlers.

Climate.

The climate is equable and temperate, remarkably free from storms and fogs; and immediately after bad weather the clouds roll inland, and there is a prevailing clearness of sky. The rain-bearing winds are mostly from the north-west and north-east. The southerly winter gales usually coat the great ranges with snow, which, however, rarely falls below 2,000 ft.

Pastoral Lands.

The total area of pastoral lands amounts to 2,002,577 acres, 103,801 of which constitute high mountain grass districts, the balance, 1,898,776 acres, comprising the ordinary bush-clad country, much of which is quite inaccessible to stock. All over the coastal lands, along the slopes of the lower hills and in the bottoms of the valleys, large herds of cattle are bred and fattened on the dense undergrowth of the forest. The tussock herbage of the high lands is being gradually used by sheep-farmers, and in the near future these natural pastures will support large flocks.

Agricultural Lands.

The agricultural lands comprise some 307,344 acres of forest and 16,440 acres of open surface, such as swamps, grass-grown river-beds and fringes, &c. The bulk of these lands, when cleared of bush, grow abundance of root-crops, especially turnips, which are much used for fattening purposes. The even and moist temperature encourages the almost uninterrupted growth of grass and clover, which are very luxuriant, and favour stock-raising. Oats are also grown abundantly for local consumption, and for the most part are cut into chaff. Year by year the imports of potatoes, fruits, butter, and fat stock are decreasing, owing to increased local production.

Means of Communication.

The district is fairly well provided with means of communication. The railway now extends from Hokitika, *viâ* Greymouth, to Reefton, branching at Stillwater to Otira, near Arthur's Pass. Coaches twice a week connect with Canterbury, *viâ* Arthur's

Pass, and ply daily between Ross, Hokitika, Kumara, Greymouth, and the neighbouring towns: while once a week a mail is conveyed on horseback southward to Gillespie's Beach, and once a fortnight to Jackson's Bay. A subsidised steamer runs between Hokitika and the numerous southern ports as far as Jackson's Bay, plying every two months, thus enabling settlers to obtain supplies and to ship their cattle and produce to market. The Government steamer also calls at Big, Jackson's, and Bruce Bays on her quarterly trips from Dunedin. Steamers also trade regularly between Hokitika and Greymouth, and other parts of the colony. The Main South Road, which for many miles skirts the foot of the main range, has been so greatly improved of late years that the traveller can now ride comfortably and safely *viâ* Haast Pass right through into Otago. Numerous bridle-tracks branch from the trunk line to various points, while the large open river-beds likewise give access to the country on either hand. From Jackson's Bay horse-tracks have been made, *viâ* Cascade River and Barn Bay, to open up the southernmost country. Sundry dips and *cols*, varying in height from 1,800 ft. to over 7,000 ft., leading down the central range, have been explored, mapped, and during the summer months are crossed from time to time by experienced mountaineers. Of these depressions, the only sub-alpine saddle is Haast Pass, all the others being liable to blocks by winter snows. A coach-road over Arthur's Pass and a horse-track through Haast Pass have been made, but between these points no trans-insular road exists. Another bridle-road is also in course of construction across Whitcombe's Pass, eight miles of which is finished, and the remaining fifteen miles has been benched as a foot track. Another foot-track has been blazed through the forest right up to the head of the Copland Valley, thus giving access to "The Hermitage." Tracks have also been constructed giving easy access to the Franz Josef and Fox glaciers, and in the future, as population increases, doubtless tourist and stock tracks will be constructed along many of the intervening routes. From Okarito northward the district is in direct telegraphic communication with the rest of the colony.

Harbours and Ports.

The harbours and ports of Westland are the following:—

Greymouth, twenty-four miles north-east of Hokitika: Extensive harbour-works have been carried out. A breakwater or sea-wall extends some 3,392 ft. seaward from the mouth of the river on the south side, and on the north side 1,125 ft., with internal half-tide training-walls, the result being an average depth of water on the bar of 20 ft. 3 in. at high water and of from 8 ft. to 16 ft. at low water. Vessels of 1,000 tons can now come alongside the wharf. There is berthage accommodation of 1,824 ft., with a minimum depth of 12 ft. to 16 ft. at low water. The principal exports are gold, coal, coke, and timber. The number of vessels that entered the port during the year 1901 was: 612 steamers, tonnage 205,632; 33 sailing-vessels, tonnage 3,680: being a total tonnage of 209,312 for the year. The train runs down the wharf, and the coal-trucks, specially made for the purpose, are lifted and emptied into the vessel's hold by means of powerful cranes, of which there are six, with capacities of from 1½ tons to 12 tons, so that every encouragement is given to quick despatch. 185,185 tons of coal, 2,394 tons of coke, 1,011 tons of bricks, and 13,944,313 superficial feet of sawn timber and 137,913 sleepers were exported during the year.

Hokitika: Two training-walls have been constructed, the one on the north side being about 2,000 ft. long, while that on the south is 670 ft. The bar is one of shifting sand, and the depth at high water varies from 9 ft. to 15 ft., while inside the depth is from 6 ft. to 22 ft. for three-quarters of a mile up from the entrance. For ten months out of the twelve the port is usually safe for vessels drawing 8 ft. to 10 ft. of water. The berthage space amounts to 1,000 ft., with from 18 ft. to 22 ft. of water. The principal exports are gold and timber.

Okarito, fifty-five miles south-west of Hokitika: A bar harbour, sometimes completely blocked by a high sand-bank thrown up by heavy seas. When open, the entrance is good, with a maximum depth of 10 ft. There is a small jetty about half a mile from the entrance.

Bruce Bay, ninety-five miles south-west of Hokitika: An open roadstead, well sheltered from the south and south-westerly winds by Heretaniwha Point, which

juts out fully a mile to the northward. Good anchorage in 18 ft. of water opposite the Green Rock, which stands up out of the water. Good boat-landing with above winds on a smooth sandy beach.

Paringa River, 104 miles south-west of Hokitika: Open roadstead. Vessels coming in and out should give Hauata Reef (off the north head) a wide berth. There is also a sunken reef, awash at low water, in the middle of the bay, and a dangerous sunken rock just off the south head, two or three chains away, facing a small sandy bay, and right abreast of the trig. station. Vessels lie inside and a little to the northward of this rock, about a quarter of a mile from shore, and are quite safe with southerly winds.

Haast River, 118 miles south-west of Hokitika: A constantly-shifting bar at entrance, which is nearly opposite and a little to the southward of the Alhambra Rock. This rock stands well out of the water, and vessels entering can go on either side with safety. Average depth of water on bar from 6 ft. to 8 ft.

Okuru and Turnbull Rivers, 138 miles south-west of Hokitika: These rivers join just inside the entrance. Good, straight channel; average depth, 8 ft. to 10 ft. The port is well sheltered by Open Bay Islands, which lie about three miles away, just opposite the entrance, bearing a trifle west of north. A dangerous reef lies about two miles and a half from the south-west point of the smaller island, and immediately to the north-west of a line drawn from the last-named point to the extreme end of Jackson's Head.

Jackson's Bay, 153 miles south-west of Hokitika: Good shelter and anchorage, open only to north-east, with 12 ft. of water within a few chains of shore. Jackson's Head runs out about one mile and a half in a north-easterly direction from the southern end of the bay. This is the only ocean harbour on the coast of Westland, and could be converted into a first-class port at comparatively small cost. No doubt Jackson's Bay will eventually form a great coal port, as indications of coal are found from the bay to Tauperikaka, a distance of thirty miles. Moreover, the recent discovery of a practicable pass through the main range, *viâ* the Whiatoto and Axius Rivers, will make it in the near future the natural outlet for the Lake Wanaka country.

Big, or Awarua Bay, 200 miles south-west of Hokitika: At the extreme south-west corner of Westland. An open roadstead, sheltered from east and south-west winds; 24 ft. of water on south side anchorage and 30 ft. on north side, just opposite Crayfish Rock, in a spot sheltered from northerly winds.

Steamers have also, in past years, entered the Teremakau, Waitaha, Wataroa, Wanganui, Waiatoto, and Arawata Rivers, all of which have bar-entrances. The Cascade River is likewise navigable, though no steamer has as yet been in; and goods and passengers are also landed at the roadsteads of Saltwater, Gillespie's Beach, and Abbey Rocks.

Towns.

Greymouth Borough: Population, 3,748; the shipping port for Grey Valley. Railway communication with Reefton, Upper Teremakau, and Hokitika. Railway workshops, foundry, and quarries. The principal business portion of the town is built on Native land, rents being paid to the Public Trustee, who distributes them to Natives entitled thereto.

Cobden: A picturesque, flourishing suburb of Greymouth, close to the State coal-mine lately opened, is situated opposite the town of Greymouth, and is connected with it by a substantial bridge.

Brunnerton: A borough of about 1,600 inhabitants; is a coal-mining centre. Coke and fire-clay bricks are also manufactured. Railway communication with Greymouth Port, Reefton, and Upper Teremakau. This place is the oldest centre of coal-mining in the district. Owing to the effect of the coal-smoke from the coke-ovens on the surrounding cliffs and bush, and the appearance of the numerous miners' cottages nestling on the mountain-slopes, it has the look of a veritable "Black Country," such as may be seen in some coal-districts in England.

Several large sawmills are at work between this place and Greymouth, which is reached at a distance of 180 miles from Nelson, the centre of the Grey River from its junction with the Arnold being the southern boundary of the district at this

part. The Midland Railway line, to connect with Canterbury by way of Arthur's Pass in the Otira Gorge, has been constructed on the Westland side of the Arnold River to Lake Brunner, the eastern shores of which it skirts for some distance, and from thence to the Teremakau River.

Kumara: Borough, of 1,121 inhabitants. This is a brisk mining town, and is probably the largest hydraulic-sluicing mining centre in New Zealand. It has two suburbs—Dillmanstown and Larrikin's.

Hokitika: Borough, of 1,946 inhabitants. This is a pretty town, the political capital of Westland, the port for shipping and centre of supply for a number of little townships, and for the whole district south of Teremakau.

Ross: Borough, population 614. A clean and neat little town, the centre of a considerable mining district, with a few good sluicing claims on a large scale.

In addition to the above, there are several small mining and sawmilling centres, such as Stafford, Kanieri, Woodstock, Rimu, Blue Spur, Okarito, and Gillespie's; also Ahaura, Hatters' Terrace, Notown, Stillwater, Kakiri, Nelson Creek, Moana, Nobles, Orwell Creek, Hatters, Twelve-mile, &c. The coal-mining township of Blackball is also just rising into importance.

Mining and Minerals.

The District of Westland contains the greatest area of alluvial auriferous ground on the West Coast.

All the Westland rivers carry more or less gold, but the two great golden rivers are the Arahura and Waiho, the bars and ripples in which appear to be replenished with fresh deposits of gold after each flood. Standing on the summit of Mount Turiwhate, the ancient beds of the Arahura can be easily traced northward to the Kumara and southward to the Rimu diggings. Similarly the Waiho has, in olden times, flowed both northward down the course of the Okarito River and southward to the Omoeroa River, the lateral terraces in both directions being well defined and gold-bearing.

There are three main gold-bearing deposits in Westland: the first, which may be called riverine leads, run generally westward. These are ancient river-beds, often lying at considerable elevations, of which the bulk has been washed away, leaving detached portions, as at Kumara and Rimu; the second are beach leads, both those along the present coast-line, and others running parallel thereto at distances varying from one-quarter to four miles inland, and at levels from a few feet below to a couple of hundred feet above sea-level; the third are extensive masses of gravel, &c., occurring in large isolated patches, as at Big Dam Hill, Humphrey's Gully, and Bald Hill, north of the Haast. These drifts have all one notable peculiarity, viz., that they invariably coat the seaward faces of the hills, and neither gold nor drift is to be found on the inland slopes. Gold-bearing fans from Mount Greenland have been found at different levels on Ross Flat, having probably been deposited in deep water by sucessive land-slides.

Hydraulic sluicing on a large scale is successfully carried on in various portions of the northern district, and is rapidly being extended to many other localities. Kanieri Lake is being re-utilised, and an abundant quantity of water is now available for the sluicers in the Kanieri Valley. The extension, now proposed, of that race to Back Creek would develop a very large field. The tapping of the Arahura River will, when completed, enable the miners at Blue Spur to obtain an unfailing supply of water, and command a large area of auriferous country, at present unworkable from want of water at a sufficient altitude. A large acreage of alluvial drift has been pegged out as dredging claims. Some companies are at work, with more or less profit; many more are busily erecting plant, while others are completing the preliminary surveys, inspections, and borings essential before placing their properties on the market. Experts are assured that an immense extent of auriferous gravels exists all over the low-lying country which will yield most remunerative returns by this new treatment. Undoubtedly great areas of swampy, undrainable, and hitherto not-available lands will be thoroughly prospected, and it is confidently predicted that valuable finds will be made in such virgin districts. Numerous and costly experiments have been made with dredges of different types in the endeavour to work

economically the gold-bearing sands which lie along the sea-beaches for a distance of over 140 miles; but very few have proved a success as yet. A considerable number of miners (black-sanders) work on some of these beaches, and seem to make a fair living, many of them having been so employed in one neighbourhood for over twenty years.

Gold-bearing quartz has been found throughout the district, the most promising finds being at Mount Alexander, Taipo Range, Browning's Pass, and Cedar Creek. Silver ores, associated with gold, have also been found, notably at Rangitoto. Copper lodes have also been discovered throughout the country, the finest outcrop being on the western slopes of the Matakitaki Range, with good seams and beds of coal and limestone adjacent.

THE CANTERBURY LAND DISTRICT.

THOMAS HUMPHRIES, Chief Surveyor.

Boundaries—Physical Features.

The Land District of Canterbury comprises the central portion of the Middle Island, and lies between the Conway River, Barefell Pass, and Mt. Franklin on the northward; the Spenser Mountains, Travers Peak, Mt. Barron, the Amuri, Hope, and Hurunui Passes, the summit of the Southern Alps, and the western watershed of the River Hopkins and Lake Ohau on the westward; the Rivers Ohau and Waitaki on the southward; and the South Pacific Ocean on the eastward. It lies between south latitudes 42° 5′ and 44° 55′, and east longitudes 169° 45′ and 173° 30′. The length of the district north-east and south-west is about 220 miles; the breadth W.N.W. and E.S.E., from the summit of the Alps to the sea, averages seventy miles. The sea-board has a length of about 300 miles, consisting generally of low-lying beaches, broken by the projection eastward of Banks Peninsula, which contains the only large natural harbours. That portion of the district which fronts the ocean between the Ashley and Opihi Rivers is flat land, about 2,500,000 acres in extent; north and south of those limits the plain is interspersed with undulating and hilly country.

This great plain stretches westwards, rising and merging into downs and hills, which again extend westward and merge into the Southern Alps and the offshoots therefrom. Banks Peninsula, which has an area of about 250,000 acres, is wholly composed of ridges and hills, deeply intersected by basins and gullies, the result of volcanic action.

The Southern Alps, which form the backbone of the island, are a continuous chain of mountains, with a succession of magnificent peaks, attaining their culminating point in Mount Cook, or Aorangi, 12,349 ft. above sea-level; there are, besides, numerous peaks ranging in altitude between 7,000 ft. and 10,000 ft. Offshoots, extending to great distances eastward and south-eastward from the main range, attain elevations of 6,000 ft. to 9,000 ft. On these mountain-ranges are numerous and extensive glaciers, from which emanates the river-system of the district, comprising the Waiau-ua, about 100 miles in length; Hurunui, 85 miles; Waimakariri, 90 miles; Rakaia, 85 miles; Ashburton, 64 miles; Rangitata, 74 miles: the Waitaki and its main feeders, 140 miles. These rivers rush down from the mountain-gorges, through the intervening ranges and hills, and traverse the plains to the sea. The channels on the plains are shallow, and extend in some instances over a mile in width.

These rivers serve as outlets for a portion of the Lake system of the Middle Island, Lake Sumner being connected with the Hurunui, Lakes Coleridge and Heron with the Rakaia, and the Mackenzie Country lakes—Tekapo, Pukaki, and Ohau—with the Waitaki. Another important lake is that known as Lake Ellesmere, west of Banks Peninsula; it is separated from the ocean by a narrow shingle-spit

only 5 chains across at one point, through which, at certain seasons, the flood waters force a channel to the sea. Lake Tennyson is situated on the eastern flank of the Spenser Mountains, 3,614 ft. above sea-level.

Climate.

The climate of Canterbury is well suited to Europeans. It resembles that of Great Britain, but on the plains is far more equable, the mean daily range of temperature being 17·10° Fahr. Observations taken at Lincoln (fourteen miles from Christchurch) for a period of ten years, ending December, 1892, give the following results: Barometer, reduced to 32° Fahr. and sea-level, 30·06 in.; mean maximum daily temperature, 61·47°; mean minimum daily temperature, 43·27°; mean average temperature, 52·37°. The extremes of temperature were 92° and 22° Fahr. The rainfall for the same period averaged 26·809 in. per annum, the extremes being 35·287 in. in 1886 and 14·836 in. in 1890. The average annual number of days on which rain fell was 123, the extremes being 149 in 1887 and 98 in 1891. Snowfalls are very light on the plains, but in the high uplands the climate is much colder and more severe. The changes of weather and temperature are sudden, calms and gales, rain and sunshine, heat and cold alternating. The prevailing winds are north-east, south-west, and north-west—the last a hot wind. The climate, as a whole, is splendidly healthy, bracing, and most enjoyable.

Foundation and Settlement.

The district was occupied, in the first instance, by settlers sent out by the Canterbury Association, which was formed in 1848, and incorporated by Royal Charter in 1849, under the auspices of prominent men in England, including the Archbishop of Canterbury and Lord Lyttelton. The step was not taken until after due inquiry as to the most suitable part in which to establish a settlement. Captain (afterwards Sir George) Grey, at that time Governor, recommended the Wairarapa, but it was finally decided to take over from the New Zealand Company a tract of the Canterbury Plains, in the neighbourhood of Port Cooper. Captain Thomas, the agent of the association, who had advised the selection, superintended the surveys and the preparations for receiving intending settlers. The original intention of the founders was that the settlement should be independent and complete in itself, and should embrace only such persons as were members of the Church of England and were approved of by the association. This was frustrated by the influx of numbers of persons of all classes and beliefs. The first body of emigrants arrived at Port Cooper on the 16th December, 1850, and the settlement remained under the control of the association, as directed by a committee of management in England, and under the active personal supervision of Mr. John Robert Godley, until 1853, when the whole of Canterbury became a province of New Zealand by the provisions of "The Constitution Act, 1852."

Thenceforward the control of the settlement was vested in the Superintendent and the Provincial Council. The first Superintendent was Mr. James Edward FitzGerald, who held office till 1857; he was followed in succession by Mr. William Sefton Moorhouse, 1857–1863; Mr. Samuel Bealey, 1863–1866; Mr. Moorhouse again till 1868; and Mr. William Rolleston till the abolition of the provinces in 1876, when the district came directly under the control of the General Government.

Internal Communication.

In no part of New Zealand are the means of communication better than in Canterbury. The natural facilities of the country have been abundantly supplemented by railways and roads. Lyttelton, the chief port, is connected by rail with Christchurch, the heart and centre of the whole district. From Christchurch the main line extends northwards to Culverden, a distance of 69 miles; southward the main trunk line runs to Waitaki, 138¾ miles. These lines tap and serve the whole coastal district, and the lands adjoining on the western side. As feeders to these trunk lines, eight branch lines have been constructed westward, and two lines south-eastward; the former, in most instances, extending to the foot of the hills.

Combined with the railway system is a complete network of main, district, and subsidiary roads, extending into all parts of Canterbury. The total length of railways is 455 miles, and the roads probably exceed 10,000 miles in the aggregate. The completion of this splendid system is due, partly to the foresight of the original settlers, partly to the exertions of the Provincial Government, and partly to the railway and public-works policy of the late Sir Julius Vogel.

Geological Formation.

According to Sir James Hector, the main western ranges are composed of Upper Palæozoic rocks, having at their base extensive plains of Tertiary fluviatile formation, with occasional protruding ridges of Upper Mesozoic, forming low mountain-ranges subordinate to the main axis. Banks Peninsula consists of basic volcanic rocks.

Area, Nature, and Disposition of Lands.

The area of the Canterbury Land District is 9,604,045 acres, of which the estimated area of forest-land is 516,030 acres. Forest-lands are found in Banks Peninsula and in the Mount Peel and Waimate districts, where the timber consists chiefly of rimu, totara, and matai; at the sources of the Waiau-ua, Ashley, Waimakariri, Rakaia, and Hopkins Rivers, at Lakes Ohau and Sumner, and near Springfield and Methven, the timber in these localities being mostly native beech; and near Oxford, where the beech is interspersed with rimu, totara, matai, &c.

The lands of Canterbury may be classed approximately as follows: First class, 2,046,071 acres; second class, 5,207,173 acres; third class (barren lands and lands of small value), 2,350,801 acres: total, 9,604,045 acres.

The disposition of lands was in 1902 as follows:—	No. of Holders.	Area in Acres.
1. Crown lands disposed of for cash (including land granted under Midland Railway Act, 572,000 acres, but deducting lands repurchased for settlement—140,377 acres) ...	...	4,027,063
2. Lands held on deferred payments	22	11,361
3. Lands held on perpetual lease	86	6,332
4. Lands held as leaseholds in perpetuity	1,100	208,049
5. Lands held in occupation with right of purchase ...	19	1,519
6. Lands held as village-homestead special settlements ...	370	12,430
7. Lands held as small grazing-runs	73	148,381
8. Lands held as grazing-farms (on Cheviot Estate) ...	40	45,971
9. Pastoral licenses	112	3,535,255
10. Special-settlement associations	38	4,653
11. Reserves and Crown lands held under temporary occupation licenses (area, 96,447 acres, included in 12 and 16)	539	...
12. Area of land reserved and granted under various Acts (exclusive of Midland Railway land, included in 1) ...	...	948,111
13. Land purchased and disposed of under Land for Settlements Acts (included in 4, 7, 10, and 11; 787 holders, 138,220 acres)	...	...
14. Crown lands open for selection	...	4,984
15. Crown lands being prepared for selection	...	...
16. Barren lands, and lands for future disposal	...	649,936
Total	2,399	9,604,045

In explanation, it may be noted that No. 1 comprises the freehold lands conveyed, and that tenants of Nos. 2, 3, and 5 have the right of acquiring the freehold, which is not the case with tenants of Nos. 4, 6, 7, 8, 9, 10, 12, and 13. Crown lands proper are: 14, open for selection; 15, being prepared for selection.

Soils.

The Southern Alps and mountains adjoining are, owing to their great altitude, subject to disintegration, and form for the most part rocky barren wastes.

The lower ranges and hills, the high tablelands, and the light stony portions of the plain form the pastoral areas.

In the northern and southern districts and in the great central plain are the agricultural areas. This latter class of land comprises rich alluvial tracts about Cheviot, Rangiora, Kaiapoi, Lincoln, Ellesmere, Longbeach, Temuka, and Waimate, and the splendid plain- and down-lands which extend from Cheviot to the Waitaki.

Banks Peninsula, where the soil is of a rich volcanic nature, though exceedingly hilly, has alluvial areas in the valleys and about the bays.

Pasturage and Crops.

Below a certain level, the mountainous and hilly regions, and the high upland country in the western and northern part, are covered by native grasses, with an admixture of English forage-plants where the character of the soil and other circumstances are favourable.

The pasturage, which is very suitable for sheep-farming, is taken full advantage of by the pastoral tenants of the Crown, and is used to some extent by freeholders. The light stony portions of the plain also contain native grass lands, well adapted to merino sheep.

The lower hills, downs, and better kinds of plain-country have been widely cultivated, and have proved well fitted for the production both of cereals and of grasses.

The chief crops grown in Canterbury District are wheat, oats, barley, turnips, rape, clover- and grass-seed; while amongst other crops produced are rye, peas, beans, mangolds, beet, carrots, and potatoes.

Of the cereals, wheat is the most largely grown, and was for many years a large item of export. In the season 1901–1902 the area under crop for threshing was 119,531 acres, being over two-thirds of the total wheat area of the colony. The yield was estimated to average 24 bushels per acre.

Oats also are very successfully grown, the figures for the same period being 164,869 acres, or over two-fifths of the total area of this crop in the colony. The estimated average yield was 32 bushels per acre.

Barley of superior quality is also produced, the figures being 9,396 acres, equal to over one-third of the total area of barley crop in the colony. The average yield was estimated to be 30 bushels per acre.

Grass-seeds are abundantly grown, cocksfoot mainly on the splendid Banks Peninsula country, and ryegrass throughout the land district.

Potatoes, which yield crops of excellent quality, were grown in 1901–1902 on 9,216 acres; turnips and rape were grown on 195,637 acres, and the combined area of other crops grown, including rye, peas, beans, mangolds, beet, carrots, and onions, was 14,094 acres. The area of wheat, oats, and barley for fodder was 64,283 acres. The area ploughed and laid down in English grasses was 1,492,942 acres. Surface-sown lands comprised 363,985 acres. The total area under crop was 577,026 acres, and the area broken up but not in crop, 9,440 acres. Plantations, exclusive of private gardens, occupied an area of 21,926 acres. The aggregate area of private and market gardens, orchards, and vineyards over quarter of an acre in extent was 7,690 acres.

Stock.

The pastoral and agricultural lands provide grazing and fodder for a large number of sheep, cattle, horses, and other stock. Of late years the value of the plains has been much enhanced and the carrying-capacity thereof greatly increased by the water-race system, which supplies water throughout the length and breadth of the dry areas, and enables the country to be occupied in smaller holdings than would otherwise be possible.

The following table shows the extent, cost, and other particulars regarding the water-race system in the several counties in 1902:—

County.	Area watered.	Miles of Races.	Total Cost.	Cost per Acre watered.	Amount of Water distributed every Twenty-four Hours.	Annual Charge for Use of Water.
	Acres.		£	s. d.	Gal.	
Amuri ...	24,162	54	4,800	3 $11\frac{3}{4}$	...	Races are maintained by an annual charge in proportion to area watered.
Ashley ...	122,000	500	25,000	4 1	27,000,000	From $\frac{3}{4}$d. to 6d. per acre, in addition to special rates for interest on loans.
Selwyn ...	326,388	1,117	73,778	4 6	90,940,960	8s. 4d. to £1 5s. per 100 acres.
Ashburton	586,000	1,315	39,800	1 $4\frac{1}{2}$	86,000,000	From £2 to £3 per mile of race.
Geraldine	71,212	260	9,010	2 $6\frac{1}{2}$	29,520,000	About 7d. per acre, including a rate for payment of principal and interest on loans, and a rate for maintenance.
Levels ...	19,000	71	5,500	5 $9\frac{1}{2}$	6,480,000	$1\frac{1}{2}$d. per acre, and on part of area an interest-rate of $\frac{1}{4}$d. in the pound on capital-value.
Mackenzie	9,000	32	1,885	4 $2\frac{1}{4}$	7,516,800	$2\frac{11}{16}$d. per acre on part of district and $\frac{1}{8}$d. in the pound on capital value in remainder of district.
Waimate	35,700	157	8,125	4 7	8,500,000	Races are maintained by an annual charge on the value of lands watered

The sheep in the District of Canterbury, in April, 1901, numbered 4,905,878. In October, 1901, there were 51,970 horses, 104,033 cattle, and 51,869 pigs.

The district has a well-deserved reputation for the classes and splendid quality of its sheep. On the mountains and higher lands the merino still predominates; but on the richer low-lying ranges, hills, and plains the prevailing types are crosses between the merino and Leicester, Lincoln, Romney Marsh, and other breeds. In proof of the superior character of the flocks, pasturage, and climatic conditions in the Middle Island, the following percentages of lambing returns are quoted—these are "fair average returns, but much higher might have been exhibited": Mountain native pasture—pure merino, 75·36; pure merino and Border Leicester, 88·94: English-grass pasture—crossbred and Border Leicester, 80·8; half-bred Border Leicester, 82·79; Border Leicester, 90·77; Lincoln, 88·08; Romney Marsh, 111·46; English Leicester, 93·34; Shropshire, 97·41; Southdowns, 96·87. It must be borne in mind that the flocks and herds are supported by the natural and artificial pastures without housing.

Owing to the development of the frozen-meat trade a great impetus has been given to sheep-breeding. The bulk of the primest meat exported from the colony is supplied by this district, with Marlborough, and commands the highest price in the London markets. In the year ended 31st December, 1901, the number of carcases frozen was 1,954,171, valued at £1,243,189. There were also produced preserved meats to the value of £25,085; tallow, valued at £71,873; 4,444 tons of bonedust and manures; besides neatsfoot-oil, oleo, &c.

The total quantity of frozen meat exported from Canterbury during the year ended 31st March, 1902, was 727,217 cwt., valued at £968,643. At Belfast, Fairfield (near Ashburton), Islington, and Timaru, freezing-works are established, each containing a complete plant for carrying on the industry, as well as departments for curing, preserving, boiling-down, tallow rendering, fellmongering, and the manufacture of manures. The Belfast Freezing Works, owned by the Canterbury Frozen Meat and Dairy Produce Export Company, contain engines of 710-horse-power, and employ 300 men. They have storage for 90,000 carcases, and can put through 5,000 carcases in a day. The same company has established a new factory at Fairfield (near Ashburton), where 40,000 carcases can be stored and 2,200 dealt with in a day. The Islington and Timaru works, which are owned by the Christchurch Meat Company, employ in all about 750 men, and have engines representing 403-horse-power. The former can put through 6,000 carcases per diem, and have storage for 120,000 carcases. The latter can deal with 4,000 carcases in a day, and have storage for 120,000 carcases. At Hornby there has been established by Messrs. Nelson Brothers (Limited) a well-equipped factory for freezing only, with engines of 300-horse-power, and a capacity of dealing with 1,000 sheep per diem. The factory has storage-room for 50,000 sheep.

Wool.

During the year ended 31st March, 1902, there were shipped at Lyttelton and Timaru 32,899,036 lb. wool, valued at £978,314; and to this must be added the amount (about 1,000,000 lb.), bought for manufacture by the woollen-mills in the district. The Kaiapoi Woollen Manufacturing Company, Limited, owns large woollen mills at Kaiapoi, and clothing factories at Christchurch. These are fitted with modern machinery and appliances, and the company's products have obtained a considerable reputation. The company employs about 1,000 hands, and pays in wages about £58,000 per annum. The staple of the New Zealand wool, especially the long-wool and cross-bred, is remarkable for its freedom from breaks and other imperfections. The average clips are approximately as follows: Merino, 4 lb. to 7 lb.; quarter-breds, 6½ lb.; half-breds, 7½ lb.; three-quarters, 8½ lb.; Leicesters, 10½ lb.; Lincoln, 11 lb. From special flocks clips up to 25 lb. and 30 lb. are obtained.

Butter and Cheese.

Banks Peninsula and the rich tracts of country previously mentioned are excellently suited for dairy farming. The pasturage and climatic conditions are favourable, and a great increase in the production of butter and cheese may be looked for, more especially as housing and hand-feeding are in some districts unnecessary. A central co-operative dairy factory has been established at Addington, served by twelve creameries, situate at Marshlands, Oxford, Halswell, Springston, Doyleston, Little River, Ladbrooks, Lakeside, Kaiapoi, Green Park Brookside, and Ashburton, each capable of dealing with the milk of 1,000 cows. There are also very complete dairy factories at Taitapu, Sefton, Cheviot, Timaru, Temuka, Southbrook, Belfast, Tinwald and Le Bon's Bay, as well as cheese-factories at Flemington and German Bay. The number of cheese and butter factories in the district in 1900 was 17, and of creameries 14; the number of hands employed was 75; the outnut of butter and cheese amounted to 2,906,715 lb.; and the total value of the output was £108,332.

Timber.

The sawmilling industry finds its development chiefly in the Oxford, Little River, Mount Somers, and Waimate districts. The number of mills in Canterbury in 1901 was eighteen, employing 260 hands, the horse-power being 317. The output in 1900 was 4,714,959 ft., valued at £22,277. The number is, however, diminishing, owing to the working-out of the available timber. The timber comprises birch, totara, red- and white-pine. The first-named is used chiefly for sleepers and fencing, the totara and pine for building purposes. Including the work done by the planing- and moulding-mills the value of all the manufactures under this head was £45,866.

Fruit.

The district is eminently adapted for the growth of a large variety of fruits, especially all that flourish in Great Britain. Attention has recently been directed to landing supplies of fruit in London; the attempts so far have proved satisfactory, and point to the possibility of a large trade being established.

Coal.

Brown coal is found at the Malvern Hills, Homebush, Whitecliffs, Springfield, Mount Somers, Albury, and various other places. Lignite is also commonly distributed. For the year 1901, the output from 14 collieries, employing about 50 hands, was 16,098 tons, bringing the total amount raised from 24 collieries up to the 31st December, 1901, to 399,484 tons. The seams worked vary from 16 ft. to 2 ft. 3 in., the average width being 8 ft. At Acheron, near Lake Coleridge, a true anthracite is found, the other pits in the district being of brown coal or lignité.

Building-stones.

The building-stones of Canterbury comprise some excellent varieties. The Halswell quarries produce an exceedingly hard and close-grained stone of a dull leaden-grey colour. Granular trachytes are obtained from Governor's Bay, Lyttelton; porphyrites at Malvern Hills; good limestone at Malvern Hills, Waikari, Mount Somers, and various other places; bluestone rock is found at Timaru suitable for millstones. There is abundance of limestone in North Canterbury, Mount Somers, Castle Hill, and various other parts, which is well adapted for making lime.

Fisheries.

Deep-sea fishing is carried on from Lyttelton and Akaroa, the kinds of fish chiefly caught being groper (hapuku), ling, conger, moki, butterfish, barracouta, soles, whiting, red-cod, herrings, and garfish. From Lake Ellesmere and the river estuaries excellent flounders are obtained.

Trout thrive amazingly in the rivers and fresh-water lakes, affording excellent sport.

Manufactories.

Excluding mines and quarries, the total number of manufactories in Canterbury at the date of the census in 1901 was 648, employing 7,050 males and 2,754 females.

Included in the above were 35 printing, 10 agricultural-implement, 26 coach-building and -painting, 29 fellmongering, tanning, currying, and wool-scouring establishments, 6 sail- and oilskin-factories, 27 boot-and-shoe factories, 7 rope-and-twine works, 8 flax-mills, 4 boiling-down, meat-preserving, and freezing works, 10 bacon-curing works, 17 cheese- and butter-factories, 23 grain-mills, 16 breweries, 10 malt-houses, 27 aerated waters and cordial works, 4 sauce- and pickle-making factories, 6 soap- and candle-works, 18 sawmills and sash-and-door factories, 4 gas-works, 20 brick, tile, and pottery manufactories, 14 iron- and brass-foundries, 20 furniture-factories, and 8 engineering-works.

The census returns also showed that in 1900, the value of land, machinery, and buildings used for factory purposes was £1,489,096, and the total value of manufactures £4,701,304.

Educational Institutions.

Primary Schools.—The district is divided into two parts, termed North and South Canterbury, each presided over by an Educational Board. Under the control of the Boards schools have been established throughout the whole country wherever population warrants their erection.

The number of children attending the public primary schools in Canterbury, on 31st March, 1902, was 24,922. Average daily attendance, 21,198. Number of teachers—males, 251; females, 393: total, 644. Number of schools, 276.

There is a Normal School at Christchurch for the training of teachers.

Secondary Education.—For the further education of children ample provision has been made by the establishment of secondary schools. The principal schools of this class are the Boys' and Girls' High Schools at Christchurch, Rangiora, Ashburton, Timaru, Waimate, Akaroa, and Temuka. For more advanced students Canterbury College, Christchurch, is available. This institution was founded and endowed by the Provincial Government in 1873. It is presided over by a Board of Governors. The teaching staff comprises thirteen professors and lecturers, and the number of students attending lectures is over 400. The School of Engineering, Electricity, and Technical Science, recently established as a special branch of the college, is well equipped, and is attended by a large number of students. The School of Art is also a special branch of the college work, and the popularity of both these branches has been met by the recent erection of considerable additions to the building accommodation.

It should be recorded here that the Provincial Government of Canterbury was fully alive to its duties as regards higher education. It made reserves for the purpose of endowment for the following objects: (1) College, 101,640 acres, reserved June, 1873; (2) technical science, 103,000 acres, reserved July, 1873; (3) School of Agriculture, 100,950 acres, reserved June, 1873; (4) Boys' High School, 9,220 acres, reserved at various dates; (5) Classical School, 8,953 acres, reserved at various dates. To these were subsequently added the following: (6) Girls' High School, 2,578 acres, reserved January, 1878; (7) Medical School, 5,000 acres, reserved December, 1877.

Primary Schools.—There are numerous private schools, independent of the State, the chief amongst them being Christ's College, Christchurch, connected with the Church of England. The Roman Catholics support schools of their own in Christchurch, Pleasant Point, Lyttelton, Timaru, Addington, Papanui, Ashburton, Akaroa, Rangiora, Sheffield, Temuka, Leeston, and Waimate. There are besides, in Christchurch, some excellent private boarding- and day-schools for both boys and girls.

Other Institutions.

Canterbury has the advantage of possessing many flourishing public institutions. The School of Art, Christchurch, was established by the College Governors in 1882; the Art Gallery owes its origin to the Art Society, the site being the gift of the Government. The Canterbury Agricultural College, Lincoln, also founded by the College Governors, is surrounded by 660 acres of land. The commodious buildings, which cost over £20,000, provide accommodation for the Director and teaching-staff, and for forty-five students. The fees are on a low scale. The farm buildings are complete, and include a well-equipped dairy. Instruction is given in agriculture, chemistry, botany, mechanics, physics, surveying, &c.

The Public Library, Christchurch, under the control of the College Governors, contains reading-rooms, a circulating library of 20,026 books, and a reference library of 13,451 volumes. Numbers of magazines and newspapers are provided. The number of subscribers is 1,894, and the average daily attendance between 900 and 1,000. A spacious free reading-room, 60 ft. by 36 ft., has recently been erected, and is supplied with 114 English, American, and colonial newspapers and periodicals.

The Museum, Christchurch, is a handsome pile of stone buildings; the collections are large and varied. They are separated into two groups: (1) Those from New Zealand; (2) those from foreign countries. In the New Zealand department the skeletons of whales and moas, as well as the collections of shells (tertiary and fossils) and rocks, are specially good; and the Maori collection, exhibited in a Maori house, is also of considerable interest. In the foreign department, the geological, mineralogical, and ethnological collections are the most extensive, but there is also a good illustrative series of Egyptian and Roman antiquities, as well as of the remains of prehistoric man in Europe and America.

This institution owes its origin and success to the foresight, skill, and energy of the late Sir Julius von Haast, and to the munificence of the Provincial Government.

The philanthropic institutions embrace the Christchurch, Akaroa, Ashburton, Timaru, and Waimate Hospitals; the Sunnyside Asylum for the Insane; the Rhodes Convalescent Home; the Memorial Home for the Aged at Woolston; the City Mission and Destitute Men's Home, Christchurch; the Deaf-and-Dumb Asylum at Sumner; the Orphanage, Lyttelton; the Industrial School at Burnham; and the Mount Magdala Asylum, Samaritan Home, and St. Mary's Home, in the vicinity of Christchurch.

Towns.

Christchurch, the capital city of the Canterbury District, is situated on the plains. It is practically level, laid out in rectangular form, two miles by one mile and a quarter, and is intersected diagonally by a street. The streets are 66 ft. in width. There are numerous open spaces, including the Cathedral Square in the centre, and Cranmer and Latimer Squares. The Avon, a pretty stream, overhung by willows, runs through the town, presenting from all points charming vistas. The city is surprisingly English in its appearance, architecture, and surroundings. The central portion, where stands the Cathedral, Government offices, and other substantial structures, has a handsome, well-built look. Other parts contain fine public buildings, such as the Museum, Canterbury College, High Schools, &c. The whole is admirably set off by Hagley Park, 400 acres in extent, the Domain and Botanical Gardens, 79 acres, Lancaster Park, the Town Belts, and other public and private gardens and plantations. The suburbs can show many handsome houses and beautifully kept grounds.

The city is surrounded by the populous boroughs and districts of Sydenham, St. Albans, Linwood, Papanui, Woolston, &c. The population of the city was at the last census (March, 1901) 17,538, in about 3,500 houses; including the adjacent boroughs and other suburbs the population amounts to about 57,000. Tramways connect the city with the suburbs of Addington, Sydenham, the Port Hills, and Papanui, and with the seaside villages of New Brighton and Sumner. The city has been drained at considerable expense, the sewage being conveyed three miles and discharged on the sand wastes near the sea. A pure and copious water-supply has been provided by nature, and is obtained by artesian wells. The affairs of the municipality are controlled by the City Council, presided over by the Mayor. Christchurch is the centre of trade and commerce for the North Canterbury agricultural and pastoral country, and the headquarters of many manufacturing industries, including carriage, boot, and clothing-factories, flour-mills, breweries, meat preserving and freezing, biscuit, planing and moulding, bicycle, and other works.

There are large and well-equipped show-grounds at Addington.

The Canterbury Agricultural and Pastoral Association and the Industrial Association, operating through a public company, have recently erected a fine block of buildings in brick and stone, comprising a large hall capable of seating three thousand persons (and known as the Canterbury Hall), together with smaller halls and suites of offices. It is proposed to establish an industrial and agricultural museum of a permanent character in the building, which should form a most useful reference to the productions and capabilities of the district. The opening of the building was inaugurated by the holding of the "Canterbury Jubilee Industrial Exhibition, 1900," commemorating the establishment of the province fifty years before, and forming an excellent index to the progress of the district since that time. The exhibition was confined to colonial products, but the bulk of the exhibits were produced in the district. It remained open for three months—from the 1st November, 1900, to the 31st January, 1901—was visited during that time by about 250,000 persons, and yielded a profit to the Industrial Association as promoters of of about £3,000.

Recreation and amusement are provided for by the Canterbury Hall (already referred to), Theatre Royal, Opera House, and various public halls, the famous Riccarton racecourse, the numerous cricket and football grounds, &c., while boating men have the River Avon and the Heathcote estuary.

Christchurch is connected with the outside world by Port Lyttelton, seven miles distant. The railway-tunnel of 1¾ miles in length, through the Port Hills, is on

this line. Christchurch is not only the centre of the splendid Canterbury Plains, but is also one of the chief railway centres of the colony. Addington railway-workshops are extensive and fully equipped.

Lyttelton, the chief port of the district, is situated on the northern shores of the inlet of that name, sometimes called Port Cooper. The surrounding country consists of high precipitous hills, which separate the harbour from Christchurch and the plains; but by the construction of the railway and tunnel the natural difficulties have been overcome, with the result that the whole of the imports and exports of northern and central Canterbury pass through Lyttelton. The origination and accomplishment of this great engineering work is due to the late William Sefton Moorhouse, at that time Superintendent of the Province. The natural advantages of the port have been enhanced by reclamation and harbour-works, which include two breakwaters, 2,010 ft. and 1,400 ft. in length respectively, extending from Officer and Naval Points, enclosing about 107 acres; long lengths of wharf accommodation, 10,041 ft.; a patent slip for ships up to 400 tons; and a splendid graving-dock 450 ft. long, width on top and bottom 82 ft. and 46 ft. respectively, the entrance being 62ft. wide, well equipped with machinery and all requisites for repairs. Ships drawing up to 25 ft. can berth alongside the spacious wharves and sheds. The railway, electric-light, machinery, and appliances are available throughout, which renders loading and unloading practicable both by day and by night. As an indication of the volume of trade dealt with at the port, it may be noted that for the year ended March 31, 1902, the imports were valued at £2,009,932 and the exports at £2,464,570. The town nestles on the side of the range, the streets being generally steep, flanked by solid stone buildings; and a background of green spurs and bold rocky faces gives to the whole a charming and picturesque appearance. The water-supply is obtained from artesian wells on the Christchurch side of the hills. To Christchurch there is a bridle-track over the range, and a carriage-road *viâ* Sumner. The harbour is well defended by fortifications and batteries on Ripa Island and the mainland. The population at last census was 4,023 persons.

Timaru, the third town in importance, is situated on the coast and railway-line between Christchurch (100 miles) and Dunedin (131 miles). The boundaries of this borough were extended in 1898, the estimated area, including town belt, being now 1,100 acres. It has a well-constructed artificial harbour, the port of shipment for the agricultural and pastoral districts of Geraldine, Timaru, and Waimate. The harbour is enclosed by a breakwater built of blocks of concrete; a rubble wall—the North Mole—starts from the shore a quarter of a mile away to the north, and extends easterly to a point 350 ft. from the breakwater. The enclosed space is 50 acres. During the year ended March 31, 1902, the value of goods imported here was £157,467 and of produce exported £745,707. The town is picturesquely situated on rolling hills overlooking the sea. The streets are irregular, but the public and commercial buildings, churches, and private houses are generally well and handsomely built of stone. The chief industries are meat-freezing, saw-milling, flour-milling, &c. The town has a good high-pressure water-supply, and is connected by well-made roads with the surrounding districts, and by rail with Fairlie, the route to the Mackenzie Country and Mount Cook. The population at last census was 6,424 persons.

Of other towns in Canterbury the following deserve mention: Rangiora, population, 1,768 persons, twenty miles from Christchurch by northern line of railway, is situated in the centre of a fine farming country, and possesses manufactories, including flax-mills, flour-mill, and brewery. The town and neighbourhood are much benefited by plantations.

Kaiapoi, on the Waimakariri, population 1,795, about fourteen miles from Christchurch by the northern railway-line, lies in a rich farming country, rendered pleasing and attractive by the extent and variety of plantations and gardens. There are factories and various industries, including ham- and bacon-curing, saw-mills, brewery, and agricultural-implement works. Here also is the famed Kaiapoi Woollen-mill, which employs 600 hands when trade is brisk. The Waimakariri is navigable for small vessels to the centre of the town.

Ashburton, the newest of the towns, has a population of 2,322, and is fifty-three miles from Christchurch on the southern trunk line. It is a well-built town, with extensive and beautiful recreation-grounds and gardens. It owes its existence to the settlement of the plains, the surrounding country being well adapted for farming. There are breweries, meat-freezing works, a cordial-factory, flour-mills, gasworks, ironworks, woollen-mill, brickworks, &c.

Geraldine, population 868, is situated on the Waihi River, four miles from Orari Railway-station, about eighty-six miles south-west from Christchurch. It is a neat and pretty town, in a first-class farming district, and has a beautiful park of native forest-trees.

Temuka, eighty-eight miles from Christchurch, on the southern railway-line, is a well-built town, with good agricultural land all round. It possesses flour-mills, a butter- and cheese-factory, brewery, foundry, fellmongery and paper-mill. There is a beautiful park and domain. The population of the borough is 1,465 persons.

Waimate, population 1,359, is situated on the Waihao Forks Railway, about four miles from Studholme Junction, some 111 miles from both Christchurch and Dunedin. This town is the centre for an extensive back-country, and a splendid agricultural area. It owes its origin to the sawmill industry of the Waimate bush. Industries: saw-milling, flour-milling, &c.

Akaroa, population 559, situated on the noble harbour of that name, was founded in 1840, in the first instance by the French. It is a quiet, picturesque little place, much patronised by Christchurch residents and others as a summer resort and watering-place. It was here that Captain Stanley hoisted the British flag on 11th August, 1840, when he took possession of the Middle Island on behalf of the Crown, forestalling the French by a few hours only. A suitable obelisk commemorating this event has been erected on the spot.

THE OTAGO LAND DISTRICT.

DAVID BARRON, Commissioner of Crown Lands and Chief Surveyor.

Boundaries and Area.

The Otago Land District lies between the 44th and 47th parallels of south latitude, and extends from 167° 20′ to 171° 10′ of east longitude. It is bounded on the north by the Canterbury Land District; on the south-east and south by the ocean; on the west and south by the Waikawa, Mokoreta, Slopedown, Waikaka, Chatton, Wendon, Waikaia, Gap, Rockyside, and Kingston Survey Districts, the western and southern shores of Lake Wakatipu, the Mid-Wakatipu, Mavora, Swinton, Eglinton, Arran, and Doon Survey Districts, and a straight line from the north-east corner of the last-mentioned district to the nearest arm of George Sound, and by George Sound to the ocean; and on the north-west by the ocean to Big Bay.

The district measures about 160 miles from Milford Sound on the west coast to Waikouaiti Bay on the east coast, and the same distance from north to south. Its area is 9,482,800 acres.

Physical Description.

The country generally is mountainous, the highest land being to the north-west, and culminating in Mount Aspiring, 9,960 ft. above the level of the sea.

The west coast mountains are remarkably rugged and grand; and of the thirteen sounds that pierce this coast, three are within the limits of the Otago Land District, the remaining ten being on the west coast of the Southland District. These three are Milford Sound, Bligh Sound, and George Sound. Milford Sound, though only eight miles in length, contains some of the grandest scenery in the world; and fourteen miles inland from its head is the great Sutherland Waterfall, 1,904 ft. high, possibly the highest waterfall known. Bligh Sound is smaller than Milford, and not nearly so interesting; but George Sound is larger, and very picturesque.

A tourist track has been opened from the head of Te Anau Lake to Milford Sound, and a practicable route has also been discovered, and a track formed, from the north-west arm of the middle fiord of Te Anau Lake to the head of George Sound.

Te Anau Track.—A guide works on this track from December to April. He carries a fortnightly mail between Lake Te Anau and Milford Sound, and also meets each trip of the "Waikare." There is ample accommodation for tourists who wish to make the journey in short stages, as there are huts erected at six different places on the track.

For nearly one hundred miles inland from the west coast the country is very mountainous, but at a distance of sixty or seventy miles from the south-east coast-line it begins to get gradually lower, taking the form of rolling hills and downs along the sea-shore.

Rivers and Lakes.

The largest rivers are the Clutha, Taieri, and Waitaki: the first-named drains Lakes Wakatipu, Wanaka, and Hawea; the last, Lakes Ohau, Pukaki, and Tekapo, in the Canterbury District. Te Anau, the largest lake in the Middle Island, lies partly in the Otago and partly in the Southland District. The dimensions of these lakes are as follows:—

Lakes.	Length in Miles.	General Breadth in Miles.	Area in Square Miles.	Height above Sea-level in Feet.
Te Anau ...	38	1 to 6	132	694
Wakatipu ...	50	1 to 3¼	114	1,069
Wanaka ...	29	1 to 3	75	928
Hawea ...	19	3	48	1,062
Ohau ...	11	1 to 3	23	1,720
Pukaki ...	11	2½ to 5	31	1,588
Tekapo ...	15	1 to 3½	32½	2,325

These lakes are situated in mountainous country; they are of glacial origin, and all very deep.

The Clutha River is the largest in New Zealand, and is estimated to discharge over 1,000,000 cubic feet per minute. It has a rapid current, but is navigable for small steamers for a distance of forty miles from its mouth. The Waitaki is not a navigable river. For some seventeen miles from its mouth the Taieri River is affected by tides, which run up one branch into Waihola Lake, and up the other branch as far as Allanton (Greytown).

There is a small steamer on Waihola Lake, and another on the Taieri River at Henley. During the summer season both run excursion trips to the mouth of the river when required. The distance in each case is about eight miles.

Plains.

There are some considerable areas of tolerably level land in the interior, the largest being the Maniototo Plains, the Idaburn, Manuherikia, and Upper Clutha Valleys. Their dimensions are approximately as follows: Maniototo Plains, length, twenty-eight miles; average breadth, ten miles; Idaburn Valley, twenty-five miles by four miles; Manuherikia Valley, thirty-five miles by four miles; Upper Clutha Valley, thirty-three miles by five miles.

The Taieri Plain, nearer the coast, is about the same size as the Idaburn Valley, and is very fertile. Other plains are the Waitaki in the north, the Tokomairiro, the Strath-Taieri, the Tapanui, and the fertile Inch-Clutha, lying between the two branches of the Clutha River, and consisting entirely of alluvial deposit. There is also a good deal of low country, chiefly rolling downs, on the south-west side of the Clutha near the sea.

Forests.

The forest-land lies mostly along the sea-coast, the largest area of bush being Tautuku Forest, about forty miles in length and fifteen miles in breadth. The western part of this forest is in the Southland District. The other principal forest areas are in the following localities, viz.: north of Dunedin, east of the Tapanui mountains, in the upper valley of the Waikaia River, and towards the north-west coast.

The forests of Otago contain a large variety of useful timber, both hard and soft wood; some being suitable for building purposes, while other varieties are highly ornamental, and much prized for cabinet-work.

Building Stones.

Building-stones of good quality are found in various places throughout Otago. The Port Chalmers quarries afford an inexhaustible supply of bluestone, a basaltic stone of great hardness and durability; and the neighbourhood of Hindon furnishes a bluestone of superior quality. A hard freestone of excellent quality is found at Waikawa, where there is a large hill of it close to the water's edge. Blocks of very great size can be obtained. There is also a freestone of superior quality on the late Hon. W. J. M. Larnach's property on the Peninsula. A dense dark granite is obtainable on Ruapuke Island; specimens, both tooled and polished, may be seen in the base and pilasters of the new Government Life Insurance Buildings at Dunedin. A soft white building-stone—the well-known Oamaru limestone—is found in large quantities along the railway-line near Oamaru, from whence a good deal is exported to other parts of New Zealand and to the neighbouring states. A similar kind of stone is found at Otekaike, about two miles from the railway-station, and it may be interesting to note that during the years 1891–93 about 3,000 tons of stone were sent from the Otekaike quarries to form the facings of the Melbourne Fish-market.

Limestone for Burning.

Limestone is found in the following places: Oamaru, Otekaike, Otepopo, Waihemo Maniototo Plains, Waikouaiti, Lower Harbour, Peninsula, Waihola, Millburn, and Wakatipu.

The Millburn Lime and Cement Company burn large quantities of lime at their Millburn works, from whence it is sent to all parts of Otago, for building purposes, gasworks, &c. It is also largely used in farming, and the productiveness of the Tokomairiro Plain has been greatly increased of late years by its application to the soil. Large cement-works belonging to the same company have been open for some years on the reclaimed land in Otago Harbour, near Dunedin. The cement manufactured at these works is considered fully equal, if not superior, to the best imported, and is largely used in building and other constructive works.

The Government have constructed a branch railway to the lime deposits on the Makareao Estate, Waihemo, having tested the same with satisfactory results, the lime produced being of exceptionally good quality.

Coal and Lignite.

No first-class coals have yet been discovered in Otago suitable for ocean-going steamships. In the southern portion of the district and in part of Southland thin seams of coal of a bituminous character exist, but so far nothing of a commercial character has been found. These coals are of Mesozoic age. First-class brown coals are worked in several parts of Otago and Southland, the principal seats of the industry being Shag Point, Green Island, Kaitangata, and Nightcaps. Considerable quantities of brown coal are now being mined in Central Otago, the dredging requirements having considerably increased the output in this district.

Beds of lignite are also found in numerous localities, chiefly round the margins of the old lake-basins and along the courses of the older river-valleys, and are worked on a small scale to supply local demands.

The output of coal and lignite in Otago and Southland for 1901 was 366,921 tons, an increase of 41,579 tons on previous year. In addition, 12,048 tons of shale were raised from the Orepuki Mine and reduced at the works recently erected at the mine for that purpose.

Climate.

The climate of Otago varies greatly in different neighbourhoods, and sometimes a distance of a few miles only separates districts very dissimilar in this respect. A large area in the interior of Otago has what may be called a dry climate. This area includes the Maniototo Plains, the Idaburn and Manuherikia Valleys, and extends to Lakes Wakatipu, Wanaka, Hawea, and Ohau on the west and north, and to the Waitaki River on the north-east. From Oamaru the direction would be across country to the Lammerlaw Ranges, and thence to Mount Benger and the southern end of Lake Wakatipu. This part of the country is well adapted for sheep of all kinds, especially merinos. Some of the runs in the hilly country are capable of carrying 20,000 sheep.

West Coast.

In marked contrast to central Otago is the West Coast District, which may be described as having a wet climate. Not that the number of wet days in the year is very great, but it is subject to very heavy rains from the north-west, the fall generally exceeding 100 in. per annum. But, although wet, the climate is mild, and the vegetation is consequently luxuriant. The only settlers of this part of the country are Mr. and Mrs. Sutherland, who keep a house of accommodation for tourists at the head of Milford Sound. There are very few visitors to the Sounds during winter, but in summer the tourist traffic is considerable. Towards the south-east and south coasts of the district the climate is moist, being somewhat similar to that of Dunedin, where the average rainfall is 35 in., distributed over 163 days in the year.

Fruit.

There are some fine fruit-growing districts in the valley of the Clutha, from below Roxburgh right up to Lake Wanaka. The summers are dry and warm, and the soil suitable. Apricots, peaches, &c., come to maturity fully a month before they do at Dunedin, and grapes ripen in the open air. There is a great future for this neighbourhood in the growing of those varieties of fruit which agree with and thrive in a dry climate. The grape might be cultivated either for wine-making or for the table, and some varieties could be made into good raisins. The dryness of the atmosphere is favourable for preserving all kinds of fruit, while the Otago Central Railway will bring the neighbourhood into direct communication with a market.

Crops.

Cereals of all kinds do very well over nearly the whole of the provincial district, which includes Southland. The following are the agricultural statistics:—

Total area under cultivation in the provincial district, including sown grasses and fallow land, 2,286,576 acres. Corn crops sown or intended to be sown this season for threshing, comprising wheat, oats, barley, rye, maize, peas, beans, 239,580 acres; land broken up and grassed, 1,461,139 acres, and 3,305 acres in clover, while 278,908 acres have been surface-sown with grass without the land being first broken up; green-crops, comprising potatoes, turnips, mangolds, rape, beet, carrots, &c., 209,201 acres; plantations, &c., including private gardens, market gardens, orchards, and vineyards of a quarter-acre and upwards, 10,933 acres, and 26,234 acres ploughed but not planted. The area in tussock, or native grass, is 8,021,849 acres.

	Acres.	Estimated Yield per Acre.	Total.
Wheat for threshing ...	31,981	27 bushels	875,959 bushels.
Oats ,, ...	199,382	41 ,,	8,204,569 ,,
Barley ,, ...	4,477	34 ,,	151,322 ,,

Stock.

The total number of sheep in Otago Provincial District, which includes Southland, on the 30th April, 1901, was 3,978,011, of which number about 700,000 were merinos. On an average, about one-third of the flocks consist of breeding-ewes. The shearing is mostly done by hand, but the Wolseley shearing-machines have been introduced on about ten stations, the number of machines in each wool-shed varying generally from ten to fifteen, though there is one shed at Benmore, near Lake Ohau, where there are twenty-eight machines driven by a turbine.

The above-mentioned district had also, in October last, 56,364 horses; 194,247 cattle; and 29,602 pigs.

The rabbit-pest is still a severe tax on the stockowners. The weight of skins exported last year from Dunedin was 796,262 lb.; the monetary value being £46,094.

Freezing Establishments.

There are nine meat-freezing and preserving-works in Otago. The principal freezing establishments are at Oamaru, at Burnside, and at Port Chalmers. At Oamaru there are two Bell-Coleman machines, and a 60-ton Hercules refrigerator, capable of freezing 1,200 sheep a day, and there is storage-room for 20,000 carcases. At Burnside there are two Haslam machines, both driven by steam. One can supply 40,000 cubic feet of cold air per hour, and the other 60,000. Also a 70-ton Hercules machine, capable of freezing 2,000 carcases per day, and having storage-room for 30,000 carcases. The Port Chalmers freezing-works, erected in 1896 by the Otago Dock Trust, cost £4,500. They are used principally for the storage of butter prior to shipment, but the freezing-chambers have also been used for sheep, rabbits, and fish. The refrigerating machinery includes a 12-ton Hercules refrigerator. The capacity of the building is 30,000 cubic feet, and 50 tons of butter can be handled per week. The capacity has lately been nearly trebled, at an additional cost of £8,500. These additions include a 35-ton Hercules refrigerator.

Woollen-mills.

There are four woollen-mills at work in Otago, employing some 900 hands The amount paid in wages is about £64,000 per annum, and the machinery is 800-horse-power. £80,000 worth of wool and other materials are used per annum, and the turn-out of manufactured goods exceeds £175,000 yearly. The woollen industry in Otago is of greater magnitude than in any other district of New Zealand, notwithstanding the fact that the Bruce Woollen-mill, one of the newest and smallest, was totally destroyed by fire on the 28th April, 1901, but is now restored.

Besides supplying local needs Otago Provincial District exported last year 23,300,592 lb. of wool, having a value of £612,888.

Clothing-factories.

In clothing-factories, also, Otago takes a prominent place, having eight, employing 778 hands, whose wages amount to £33,200 per annum.

Dairy Factories.

The dairy industry in Otago continues to make substantial progress, notwithstanding the fact that farmers have in this district many less arduous kinds of profitable work. The butter industry more especially seems to advance. In North Otago the newly-organized North Otago Dairy Factory at Oamaru has made substantial progress, notwithstanding a very unusually adverse season owing to dry weather. The Taieri and Peninsula Company continue to extend and increase, and have absorbed a good many of the smaller cheese-factories. The cheese-factories still, however, make progress, and this season has been a good one both as to price and to milk-supply.

Prices both of butter and cheese have been good. A large quantity went as usual to London, and a very considerable quantity to Australia, at first to supply their South African trade, but latterly to provide for their own wants caused by the prolonged drought there.

In some of the newly-opened bush-districts, like Waikawa, the dairy industry is progressing, the cheese-factories there being a great help to settlers.

Condensed milk factories have now started successfully, and bid fair to prove a very profitable addition to the dairyman's business.

It is satisfactory to know that both our cheese and butter are now well known and sought for by London buyers, and command the highest prices in that market.

The establishment of a direct service to South Africa is expected to give further impetus to dairying.

Gold Production.

Otago produces about one-third of all the gold taken out in New Zealand.

Gold is found very generally distributed throughout Otago, except in the southern portion of the district. The principal localities are: Clutha Valley, Tuapeka, Shotover, Cardrona, Tinker's, St. Bathan's, Mount Ida, Nevis, Bannockburn, and Maerewhenua.

Last financial year the Otago Provincial District produced 128,200 oz. of gold, having a value of £515,265.

Chief Towns.

The following are the chief towns of Otago, with their population, including all having 1,000 inhabitants and upwards: Dunedin, and suburbs, 52,390; Oamaru, 4,836; Port Chalmers, 2,056; Mosgiel, 1,463; Milton, 1,241; Kaitangata, 1,463; Lawrence, 1,159; Balclutha, 1,017.

City of Dunedin.

Dunedin, the capital city of Otago, is situated at the head of Otago Harbour, which is divided into two parts—the upper and lower. The lower harbour is six miles long from Taiaroa Heads to Port Chalmers. The upper harbour, from Port Chalmers to Dunedin, is seven miles in length. Dunedin and Port Chalmers are also connected by railway.

Although the hills surrounding Dunedin are rather tame in character and outline, the city itself is picturesquely situated. The business part of it is on level land near the harbour, and the residences occupy the sloping hills which rise on the west side of the city. The city proper is about two miles and a half long by seven-eighths of a mile wide, and is bounded on the land side by what is called the Town Belt. This reserve averages one-fifth of a mile in width, and comprises 500 acres, a great part of which is virgin bush. A pretty road, called the Queen's Drive, has been laid out through the Belt from end to end, from which many fine views of the town and harbour can be obtained.

It is thirteen miles down the harbour to the Heads in a north-easterly direction, but the Ocean Beach, lying to the south-east, is only two miles from the centre of the city, and the favourite seaside resort—St. Clair—is about three miles. Trams run to both these places at short intervals. The city is also connected with the suburban boroughs, lying on the hills overlooking the town, by excellent cable-tramways. The Botanical Gardens to the north of the city are well laid out, the native bush contrasting with the cultivated parts. The Reservoir also, which is within easy walking distance, and the drive to Blueskin Bay, have many beauties.

Dunedin is well supplied with elementary schools, there being six large schools in the city proper, with an attendance of 3,365 pupils, and eight more in the suburbs, with 4,069 pupils.

There is also in Dunedin a training-college for teachers. The students in training number seven men and seven women. They devote every fifth week during the session to practice in teaching and management of classes in the ten associated schools of the city and suburbs.

The School of Art and Design is in the same building as the Normal School, and has a staff of five teachers and a pupil-teacher. In 1901 there were 403 students in attendance.

The Otago Boys' High School stands on a commanding plateau 300 ft. above the business part of the city and the harbour. The school was opened on the 3rd

August, 1863, in the building in Dowling Street now occupied as the Girls' High School. The new buildings were opened by the late Sir William Jervois, Governor, in February, 1885. The teaching staff, including the Rector, numbers ten; the attendance is about 181.

The Otago Girls' High School was opened on the 6th February, 1871, with a roll of 78 pupils. The present attendance is 117, with a teaching staff of 11, including visiting teachers. Otago holds the proud distinction of having established the first Girls' High School in Australasia. Among the earnest band of workers who laboured to establish this first High School for girls the name of Miss Dalrymple stands pre-eminent, and will ever be held in grateful remembrance by the people of Otago.

The Otago University was founded in 1869, and opened in 1871. It is well housed in a handsome pile of buildings in the domestic Gothic style. There are four separate faculties in the University—viz., Arts and Science, Law, Medicine, and Mining. The School of Medicine provides the full course for a Medical degree of the University of New Zealand. There is a Medical Museum in the University buildings containing anatomical, pathological, and other preparations and models. The teaching staff numbers at present twenty-one professors and lecturers. The School of Mines occupies a separate (temporary) building. There are at present about sixty students going through the prescribed courses for the diplomas and certificates in the Mining, Metallurgical, Geological, Mine and Land-surveying and the Assaying Divisions. Of undergraduates keeping terms there are 248—viz., 189 men and 59 women. The University Library contains over 5,000 specially selected volumes, and is open to the public under certain conditions for purposes of reference. The Chemical and Physical Laboratories are well fitted up, and furnished with all necessary instruments and appliances. There are six scholarships tenable at the University, ranging in value from £15 to £30 per annum.

The public Museum, of which the Professor of Biology is Curator, is under the control of the University Council. It is situated in Great King Street, about five minutes' walk from the University. There is a public Art gallery attached, which contains some good works of art. Up to the present time only the central portion of the original design for the Museum building has been erected.

The Dunedin Athenæum and Mechanics' Institute possesses a fine library of over 17,000 volumes, and a membership of over 950 subscribers. Besides the Circulating Library there is a Reference Library, and two good reading-rooms, well supplied with newspapers and magazines.

There are some fine specimens of architecture in Dunedin, the buildings for the most part having an air of permanence and solidity. Some of the churches are very handsome. The First Church, in Moray Place, and Knox Church, in George street, are both handsome stone structures, and St. Joseph's Cathedral (Roman Catholic) is built of stone in the decorated Gothic style. The portion at present constructed will seat 1,000 persons, and has cost £23,000.

The Cargill Monument, which was erected to the memory of the late Captain Cargill, the founder of the Otago settlement, stands in the Triangle, between the Customhouse and the Bank of New Zealand. It is an ornate specimen of early decorated Gothic.

Towns and Surrounding Country.

Port Chalmers (eight miles from Dunedin) situate on Otago Harbour, midway between the Heads and Dunedin, has a population of 2,056. It is the chief port of Otago, and possesses every accommodation for Home vessels, including dry dock, 80-ton sheer-legs, steam-hammer, and other appliances, besides several private foundries, cool-storage chamber, &c. The Port Chalmers graving dock is described in the article on page 61.

Leaving Dunedin by the northern railway, winding in and out through the hills which surround the town, and skirting the precipitous cliffs of the coast-line, the first station of importance reached is Waitati, a favourite seaside resort in Blueskin Bay; distance, seventeen miles. Fifteen miles beyond is Waikouaiti; population, 690; pleasantly situated on the Hawksbury lagoon, the centre of a flourishing farming

country. The next place of note is Palmerston, forty-one miles from Dunedin, with 738 inhabitants. A branch-line leaves Palmerston and runs nine miles up Shag Valley to Dunback. Six miles further on the main line there is a branch to Shag Point, a coalfield, with two pits being actively worked.

Oamaru (seventy-eight miles) is the second town in Otago, having a population of 4,836. It is the centre of a large farming district, and has a good harbour, formed by a concrete breakwater, for the reception of ocean-going ships. The chief exports are wool and grain. A branch-line runs from the junction near Oamaru up the Waiareka Valley to Ngapara, seventeen miles, and Tokaraki, twenty-six miles from Oamaru, and another seven miles by road brings us to Livingstone.

Starting from Oamaru, and proceeding to Central Otago, *viâ* the valley of the Waitaki River, the first part of the journey is accomplished by rail across the fertile Papakaio Plains to Awamoko (ninety-six miles), and thence following up the Waitaki River past Duntroon to Kurow (120 miles). At Kurow the traveller leaves the railway and follows the course of the Waitaki through pastoral country to Rugged Ridges Station (133 miles); a little beyond Rugged Ridges the road leaves the Waitaki River, and crossing the Ahuriri Pass (141 miles), strikes the Ahuriri River, which it follows up past Omarama Station (158 miles) to the junction of Longslip Creek; it then ascends this creek until Lindis Pass saddle is reached (172 miles), at a height of 3,185 feet. Here begins the descent to the Clutha Valley *viâ* Morven Hills Station (181 miles) and Tarras Station (200 miles). From Tarras Station the road runs through settled farming country up the Clutha River, which is crossed by means of a punt at Newcastle (219 miles), and four miles more brings the traveller to Pembroke, on the southern shore of Lake Wanaka.

From Dunedin the main trunk railway runs southward to Invercargill, a distance of 130 miles. Passing through the Caversham Borough and tunnel the traveller reaches Burnside (five miles) and Abbotsford (six miles), industrial centres, with coal-mining, tanning, iron-smelting, and other works. Farther on is Wingatui, the junction of the Otago Central Railway; and ten miles from Dunedin is Mosgiel, a rising township with 1,463 inhabitants, noted for its woollen-mills. The railway-line now skirts the Taieri Plain, an alluvial flat eighteen miles long by five miles broad; the most fertile portion of Otago. A branch-line from Mosgiel junction runs to Outram (nineteen miles), on the farther side of the Taieri Plain. Passing the smaller Townships of Allanton (Greytown) and Henley, and Lakes Waihola and Waipori, the line strikes Milton (thirty-six miles). Milton, in the middle of the Tokomairiro Plain, is a town of 1,241 inhabitants, with flour-mill, dairy factories, flax-mill, pottery works, and tannery. The next place of importance is Balclutha (fifty-three miles), on the banks of the Clutha River, with flax-mills, dairy factories, and chicory works; population 1,017. Kaitangata, situated lower down the Clutha River, and connected by a branch-line, has extensive coalfields, and a population of 1,463. Leaving Balclutha, the main line runs through the Clutha downs, passing the small centres of Waitepeka, Warepa, Kaihiku, and Waiwera, and reaches Clinton (seventy-three miles), on the Waiwera stream, a favourite resort of anglers. The next station of note beyond Clinton is Waipahi Junction (eighty-three miles), on the Waipahi River, likewise a favourite fishing-ground. Further on is Gore (ninety-nine miles), on the Mataura River, in the Southland District. Gore is a fast-rising township of 2,354 inhabitants, with paper-mill, flour-mill, freezing-works, dairy factory, coal-mines, &c.

A branch-line from Waipahi follows up and crosses the Pomahaka River and connects Tapanui (ninety-six miles), Kelso (ninety-eight miles), and Heriot (one hundred and two miles).

The Otago Central Railway starts from Wingatui, crosses the Taieri Plain, and then winds round to the Taieri River, which it follows up to the present terminus at Ida Valley. In its course along the river it runs for some distance through a rocky gorge, but after crossing the Sutton Stream enters Strath-Taieri—a comparatively flat, open country. Near Hindon Station (twenty-five miles), in the Taieri Gorge, and Barewood (thirty-six miles), there are quartz-reefs being worked. In traversing the Strath-Taieri the line passes the Blair-Taieri Village Settlement (forty-four miles), Middlemarch, a rising township (forty-eight miles), and reaches Hyde (sixty-four

miles). The present limit is Ida Valley (ninety-eight miles). The extension of the line to Clyde presents no engineering difficulties. Central Otago has a great future before it, as in the opinion of experts it is naturally adapted for producing fruit of all kinds in perfection.

Another means of access to Central Otago is by the Clutha Valley.

Two miles beyond Milton the Lawrence branch leaves Clarkesville Junction, runs up the Tokomairiro River and the gorge of Manuka Creek, and down to Waitahuna (fifty-three miles), and Lawrence (sixty miles), gold-mining centres, with an aggregate population of about 1,500. Gold was first discovered here in 1861, and the mines are still yielding freely. From Lawrence a coach runs to Beaumont (seventy-two miles), on the Clutha River. Crossing the Beaumont Bridge the road follows the west bank of the Clutha, passing numerous dredging-claims. At eighty-nine miles is Ettrick, and seven miles further on is Roxburgh—the Teviot—(ninety-six miles), a town of 478 inhabitants. Recrossing the Clutha River by the Roxburgh Bridge, and proceeding up the east bank, the traveller reaches Alexandra South (124 miles), at the junction of the Manuherikia River with the Clutha, and Clyde—the Dunstan—(130 miles), the chief town of Vincent County. The next place of importance is Cromwell (143 miles), at the junction of the Kawarau River with the Clutha. Cromwell is a small town of 642 inhabitants, and has a good bridge over the Clutha River. If the traveller wishes to pursue his journey farther he can either follow the road up the Clutha to Newcastle and Pembroke, on Lake Wanaka, or take the Kawarau Gorge road by way of the Crown Terrace to Queenstown, on Lake Wakatipu.

Queenstown, a picturesque township situated on the shores of Lake Wakatipu, has a population of 690, and is the centre of a large gold-mining district. The chief feature of Queenstown is the grand mountain and lake scenery in the neighbourhood, which attracts large numbers of tourists every year. There are two ways of reaching Queenstown—the one by the Clutha Valley and Kawarau Gorge, as above described, and the other by rail to Kingston, at the foot of Lake Wakatipu, and thence by steamer, which runs to suit the trains.

The Tautuku bush, in the south of Otago, has only lately been opened up, but already a large number of settlers are making their homes there. Starting from Balclutha the Catlin's River branch-line runs southwards to Romahapa (sixty miles) on the crossing of the main road to Port Molyneux, thence to Glenomaru (sixty-four miles), and Owaka (seventy miles from Dunedin). The Catlin's-Waikawa main road is formed the whole way through, as are also numerous district roads, and the adjacent lands are being taken up as fast as they are thrown open.

Railways.

The principal lines are as follows: (1.) The main trunk line from Dunedin to Christchurch, with branches from Oamaru to Hakataramea, forty-three miles; and Oamaru to Ngapara and Tokoraki, twenty-five miles; also, Palmerston to Dunback, nine miles. (2.) The main trunk line, Dunedin to Invercargill, with branches, Mosgiel to Outram, nine miles; Milton to Lawrence, twenty-four miles; Stirling to Kaitangata, five miles; Balclutha to Owaka, eighteen miles, four miles beyond Owaka towards head of lake under formation; and Waipahi to Heriot, twenty miles, three miles further on towards Edie's under formation. (3.) The Otago Central, from Wingatui to Ida Valley, ninety-seven miles and three-quarters, is opened, and formation sixteen miles further on is under way, extending a mile beyond Spottis Creek.

Statistical.

The total population of the Otago Provincial District on the 31st March, 1901, was 173,145.

Area of Otago Land District: Open land below 2,000 ft., 5,300 square miles; forest-land below 2,000 ft., 1,960 square miles; open land above 2,000 ft., 6,777 square miles; forest-land above 2,000 ft., 500 square miles; area of lakes, &c., 280 square miles: total, 14,817 square miles, or 9,482,800 acres.

The following table shows the disposition of the land in the Otago District on 31st March, 1902:—

	Holdings.	Acres.
1. Lands finally alienated, comprising freehold land and vested reserves	...	2,812,858
2. Lands held on deferred payment, rural	52	15,434
3. Lands held on perpetual lease, rural	262	51,167
4. Lands held under occupation-with-right-of-purchase clause	173	31,754
5. Lands held on lease in perpetuity, ordinary Crown lands, rural	624	163,409
6. Lands held under agricultural lease on goldfields ...	16	508
7. Lands held under Mining Districts Land Occupation Act	136	4,968
8. Lands held under village settlement, deferred payment ...	3	130
9. Lands held under village settlement, perpetual lease ...	23	486
10. Lands held under village settlement, lease in perpetuity ...	122	1,855
11. Lands held under village-homestead special settlement, perpetual lease	79	1,258
12. Lands held by special-settlement associations, lease in perpetuity	14	2,765
13. Lands held as improved-farm settlements	53	7,466
14. Lands held as small grazing-runs	259	527,624
15. Lands held under pastoral license, not including bush ...	237	4,508,322
16. Lands held under lease and license for miscellaneous purposes, exclusive of gold-mining	543	77,090
17. Lands acquired and disposed of as lease in perpetuity under Land for Settlements Act, rural	356	49,361
18. Lands acquired and disposed of as small grazing-runs under Land for Settlements Act	3	3,667
18A. Lands acquired and disposed of as pastoral homestead sites	2	954
19. Lands acquired and disposed of as miscellaneous licenses under Land for Settlements Act	46	699
20. Crown lands open for selection (including Land for Settlements Act)	...	120,274
21. Crown lands being prepared for selection (including 5,172 acres under Land for Settlements Act)	...	21,300
22. Land open for application under pastoral licenses ...	9	42,060
23. Lands held by aboriginal natives	...	16,500
24. Lakes, and Clutha and Taieri Rivers	...	179,200
25. Balance of Crown lands, including mining reserves, public reserves not vested, bush-lands, roads, barren country, &c.	...	902,070
Total area of district (14,817 square miles),		9,482,800

Tenants of lands included in 2 and 4 have the right of acquiring the freehold, as have tenants of 3 up to twelve years from the date of issue of the lease, and of 6 in the case of leases issued prior to the Act of 1891. There is no right of acquiring the freehold for tenants of lands included in 5, 11, 12, 14, 15, 16, 17, 18, and 19, and in the case of No. 13 the right of acquiring freehold applies to portions only. From item No. 1 should be deducted 60,379 acres, having been acquired under Land for Settlements Act, and absorbed in items Nos. 17, 18, 19, and part 20 and 21. The summation of items exceeds total area of district by this amount.

THE SOUTHLAND LAND DISTRICT.

J. HAY, Chief Surveyor.

Physical Features.

The Southland District, comprising the Counties of Southland, Wallace, Fiord, and Stewart Island, bounded on the north and east by the Otago District, and on the south and west by the Tasman Sea, may be said to lie between south latitudes 45° and 47° and east longitudes 166° 15′ and 169° 15′. For administrative purposes, however, the Snares, Auckland, Enderby, Campbell, Antipodes, Bounty, and all other islands within the limits of the colony south of the 47° parallel of south latitude are included in it.

Area and Nature of Lands.

The total area of the district, including Stewart Island, but exclusive of Solander, Ruapuke, and the other small islands enumerated above, is 6,966,592 acres, of which 500,000 are covered with bush. A considerable area in the Fiord County consists of immense alpine country with scrubby bush reaching to the snow-line. This little-known country extends to the western sea, and there presents the almost indescribable West Coast Sounds. The whole region is a paradise for the artist, and, indeed, for all enthusiastic lovers of nature, but has little attraction for the agriculturist or pastoralist. The bush land suitable for timber lies in the neighbourhood of Forest Hill, Hokonui, Waikawa, and on Stewart Island. The timbers of commercial value are totara, rimu, miro, matai, rata, and kamahi, in mixed bushes; but *Fagus fusca* and other beeches predominate on the high lands.

The open land in Southland and Wallace Counties, in its natural state, carries tussock and snow-grass, fern, flax, manuka, &c., and there is a considerable area of marshy land, interspersed here and there with peat bogs.

Perhaps the most striking feature, if we exclude the Fiord country, is the number of well-defined rivers and valleys of the district, the latter often widening out to such an extent as to form very extensive plains. Commencing with the eastern side, the Mataura, Oreti (or New River), Aparima (or Jacob's River), and Waiau are the most prominent illustrations of this; but these rivers by no means exhaust the list, as they all have numerous tributaries, which exhibit the same features on a smaller scale.

Speaking generally, the watersheds of these rivers do not attain any great height until followed far inland, and near the great lakes to be presently noticed. From what has been said above it follows that the extensive plains and valleys referred to are of alluvial formation, in many places of very rich and fertile quality, and capable of raising crops of every known product, subject, of course, to climatic limitations. Generally these plains and valleys rise from the river-levels in a very gradual slope, sometimes into a series of terraces from 10 ft. to 50 ft. in height, and sometimes into undulating hills, intersected at frequent intervals by lateral gullies, affording natural drainage and an abundant supply of water.

These hills are covered with an indigenous growth, consisting of tussock and other grasses, fern, flax, &c., and even in their native state afford excellent grazing for sheep.

Near the large lakes, such as Wakatipu, Te Anau, Manapouri, Hauroto, and others, and between these and the West Coast, the country becomes very high, often reaching 5,000 ft. and 6,000 ft. above sea-level, with very steep and rugged spurs—this is the Fiord country before referred to. The open country occasionally presents a number of ridges and lesser mountain-tops covered with tussock and other herbage, affording admirable pasture for sheep in summer; but stock have to be removed from April to October, during which period this country is generally covered with snow.

Southland does not contain so much forest as most of the North Island districts, and this will account for its early and extensive settlement; nevertheless there are

considerable areas of forest in the eastern, southern, and western parts, and on Stewart Island, and a large export trade is done in the different kinds of pine and other timbers used for building, engineering, furniture-making, &c.

From what has been said of the river systems it will be evident that the country is well supplied with water, although none of the rivers can be used for purposes of internal communication; but the plains are traversed by railways for considerable distances from the principal towns, and where the railways end communication is continued by good roads, so that there is probably no part of the colony so well off for means of transit; and with the Bluff Harbour the Southland District would seem to possess every facility.

Agriculture.

Having already touched on the character of the soil, it only remains to say that the plains, terraces, and lower hills are well adapted for raising wheat, oats, and other cereals, turnips, mangolds, beets, and the various other crops common to temperate climates. Wheat is not so widely grown as it might be, for the reason, probably, that the pastoral branches of farming receive more attention than the agricultural, and wheat is not required for these; whereas oats are largely grown for export and to feed sheep in the form of chaff; turnips also are much cultivated for winter food. Where wheat is grown the yields are very satisfactory, ranging from 40 to 60 bushels per acre, while oats frequently give 80 to 100 bushels.

Linseed is now receiving some attention from farmers, as they find ready sale for it to the manufacturing chemists at remunerative prices, a fair crop yielding over £5 per acre.

Dairy-farming, &c.

Dairy-farming now forms a very important industry in this district, a number of factories having been established, the total number in the district being twenty-three; one being a large condensed-milk factory, one making first-class Stilton cheese, and the rest being cheese and butter factories.

Sheep-farming.

By far the most important industries are those connected with the raising and export of mutton and wool. Some years ago sheep-farming was much hindered by the inroads of rabbits; but owing to the repressive measures adopted there has been a marked abatement of the pest. The hill-country, although it does not carry a large proportion of stock to area, is eminently healthy. The average carrying capacity over the whole district would probably be slightly over one sheep to the acre. Until within the last few years most of the runs were stocked with merinos, but owing to the decline in price of merino wool, and to the carcase being unacceptable to the European market, these sheep have, generally speaking, been replaced by Leicesters, Lincolns, Romney Marsh, Cheviot, and crossbreds of various kinds, better suited to the existing demands. A number of large establishments for slaughtering and freezing sheep are at work. One of the latest of these, erected near the Bluff Harbour, is considered to be the most complete in the colony, being provided with all possible labour-saving machinery and appliances for working up the by-products into articles of commerce.

Industrial (Coal, Gold, &c.).

Extensive seams of coal and lignite are distributed over the district, and in many places the annual output is considerable. A deposit of shale covering a fair area exists at Orepuki, and extensive buildings with machinery have been erected to recover the oil, wax, and other products. As being a new industry the Government has assisted liberally to develop it. Peat is also found in some up-country neighbourhoods, and is used for fuel where wood and coal are scarce. Gold is found all over the district, and a large number of persons are engaged in obtaining it either by sluicing or dredging. A considerable amount of capital has been invested in river- and beach-dredges worked by steam. Payable gold-bearing reefs

exist in Preservation Inlet and at Stewart Island. Among the lesser industries the preparation of the fibre of the native flax plant (*Phormium tenax*) is worthy of notice. The plant is found all over the district, and a number of mills have been set up, but the prices realised in the London market are so variable that the export has become irregular.

Fish.

Salt-water fish abound in great numbers in the waters surrounding Stewart Island, and oysters are found on banks between that island and the Bluff. Fish are largely exported to Melbourne, as also the oysters during the open season. All the large rivers, and many of the tributaries, are well stocked with trout, and one river—the Aparima—had salmon-spawn put into it some years ago, and, it is now believed, with success.

Fruit.

The small English fruits, such as gooseberries, currants, raspberries, strawberries, &c., grow in great profusion, as do also apples. Stone-fruits are not so common, although peaches, nectarines, apricots, &c., do well when trained against nursery-walls in favourable aspects.

Climate.

The climate is bracing in winter, and warm and genial in spring and summer. The old residents state that there has been a marked decrease in the rainfall within the last decade. No regular observations have been recorded for the last few years, but it is believed that the average is about 30 in. a year. It may, however, be observed that more rain falls near the coast than inland, and also that the rainfall is more evenly distributed throughout the year than is the case in the northern part of the colony. The temperature varies from 40° in winter to 70° in summer.

Towns.

Invercargill, the chief town, was from the first well laid out with wide streets, and liberal reserves in the town belts for recreation purposes. The Corporation exercises a paternal care in providing water, gas, and in disposing of sewage, &c., for the citizens; and the streets are well lighted, paved, and maintained. Artesian water is pumped to the top of a handsome brick tower—which, by the way, is a very conspicuous landmark—and stored there in a tank, from which most of the houses within the town boundaries are supplied. The population, including suburbs, is nearly 11,000. Five railways concentrate here, one from the famed Cold Lakes, another from Dunedin and Christchurch, a third line communicates with the agricultural and pastoral country lying east of the Mataura River, known as the Seaward Bush line, a fourth line opens communication with the extended area westward covered by the Wallace County and known as the Western District, while the short line to the Port of Bluff carries a very heavy traffic—the main produce of the district—for export. There are rope-and-twine, carriage and implement-factories, flourmills, sawmills, fellmongeries, brick and pottery works, iron-foundries, and various other industries. Exceptionally good beer is brewed here, and there are three first-class hotels. The Government Buildings, lately enlarged, are on a scale not often seen in a town of the same size. A clock and chimes of New Zealand make have been placed in the central tower. Although the Bluff is the principal port, Invercargill is provided with a lesser harbour for smaller vessels, in the New River Estuary, where there is a jetty with appliances for handling and receiving goods within the town boundaries.

The Bluff Harbour, which is connected by rail with Invercargill, does a very large shipping business, and derives additional importance from being the first and last port of call for steamers trading with Victoria and Tasmania.

Next in size to Invercargill is the inland Town of Gore, situated on the Mataura River, and at the junction of the Main Trunk Railway with the Waimea Plains Branch. Owing to this fact, and to the fertility of the land in the neighbourhood, Gore is rapidly growing in size and importance.

Riverton is a pretty little town, about twenty-five miles from Invercargill, with which it is connected by rail, which runs through to Orepuki; it is situated on the estuary of Aparima, or Jacob's River. Riverton is the oldest settlement in Southland, and was a great resort for whalers in former years. The harbour is available and used by coasting-vessels, but the principal carrying-trade is done by rail. There are several sawmills in the neighbourhood, this industry being largely carried on near the many timbered localities in the district.

The Village of Nightcaps is reached by a short line of railway near Riverton. A large colliery exists here, supplying the whole district with a good coal for general use.

The Town of Winton is on the Invercargill–Kingston Railway, about twenty miles distant from the latter, and is the centre for a good farming, sawmilling, and coal-mining district. A short line of railway has been opened from here to Hedgehope, a locality lying some fifteen miles in a westerly direction; this line will ultimately connect with the Main Trunk Railway.

Lumsden is the junction of the Kingston and Waimea Plains lines. Coaches starting from this place take passengers and mails to Lakes Manapouri and Te Anau and the surrounding country.

East of Invercargill is Wyndham, connected by railway. From this town to Fortrose a fine stretch of agricultural country exists, with good roads. Fortrose is situated on the estuary of Mataura River, which can be entered by coasting steamers. This place is surrounded by exceedingly fertile agricultural and pastoral country.

Eastward of Fortrose and about midway between that place and Catlin's River is Waikawa, a newly-settled township with a first-class harbour for coasters, and a large area of surveyed Crown land around it available for settlement. Steamers trading with Dunedin and Invercargill call here and at Fortrose at regular intervals. A good export of timber occurs at Waikawa.

Crown Lands for Disposal.

There remains for disposal a very large area of Crown land, probably more than 500,000 acres, but this can be estimated only roughly. It is true that this is chiefly forest land of rather an inferior nature, but when once cleared and laid down in grass it affords fair pasture for grazing stock, and grazing is and will long remain the principal industry of the colony. The land referred to lies around Waikawa Harbour, along the Waikawa–Catlin's Road, between the Jacob's and Waiau Rivers, and to the west of the Waiau. Stewart Island contains a wide extent of Crown lands, mostly forest-clad, and although some 144,000 acres have been open for a considerable time on free selection under the optional system, at a minimum price of 5s. per acre, very few selections have been made. This may be partly accounted for owing to the difficulties of transporting stock, and the isolated nature of the island. The land near the coast is quite equal to that on the mainland, but the same characteristic obtains—viz., the further from the coast-line or river-bank the more inferior the land becomes. When the more accessible bush lands are taken up on the mainland, no doubt Stewart Island will receive more attention from intending applicants. There are also considerable areas of open hilly country, carrying natural grasses, still in the hands of Government. These are to be found in various parts of the district, but are being rapidly taken up.

APPENDIX

PRINCIPAL EVENTS.

DATES OF SOME OF THE PRINCIPAL EVENTS IN THE HISTORY OF NEW ZEALAND.

Dec. 13, 1642.—Discovery of New Zealand by Abel Jansen Tasman.

Oct. 8, 1769.—Captain Cook landed at Poverty Bay on his first visit.

June 30, 1788.—Macauly and Curtis Islands, of the Kermadec Group, discovered by Captain Sever, of H.M. transport "Lady Penrhyn."

Nov. 29, 1790.—Chatham Islands discovered by Lieutenant Broughton, in H.M.S. "Chatham."

Nov. 17, 1793.—Captain d'Entrecasteaux, with the "La Recherche" and "L'Espérance," discovered Raoul or Sunday Island. (The latter name was given by Captain Raven, of the transport "Britannia," who visited the island 6th Nov., 1796.)

Nov., 1793.—Lieutenant-Governor King's (of Norfolk Island) visit to Doubtless Bay.

1795.—The ship "Endeavour," Captain Bampton, sunk at Facile Harbour, Dusky Sound.

1800.—Antipodes Island discovered by Captain Pendleton.

1806.—Auckland Isles discovered by Captain Briscow, ship "Ocean," one of Enderby's whalers.

1806.—Ship "Venus" visited East Coast of New Zealand. She was taken by convicts at Port Dalrymple, Tasmania. Their visits gave rise to the Nga-Puhi southern expedition.

1807.—Defeat of Hongi and Nga-Puhi tribe at Moremonui, 10 miles south of Maunganui Bluff, Kaipara.

1809.—The taking and burning of the transport "Boyd" at Whangaroa.

1810.—Campbell Island discovered by Captain F. Haselburg, of brig "Perseverance."

1814.—First arrival of the Rev. Mr. Marsden at Bay of Islands, and introduction of Christianity. Horses, oxen, sheep, and poultry first brought to the colony.

Aug., 1815.—Attempted capture of the "Trial" and "Brothers" at Kennedy Bay.

1818.—Hongi's and Te Morenga's great expedition to East Cape.

1819-20.—Patuone, Nene, and Te Rauparaha's raid on Taranaki and Port Nicholson.

1820.—Hongi visited England; returned to New Zealand July, 1821.

1820.—H.M. store-ship "Coromandel" visited Coromandel.

1820.—Rev. S. Marsden travelled from Wai-te-mata *viâ* Kaipara to the Bay of Islands—the first white man to do so.

Aug., 1820.—The "Prince Regent" entered Auckland Harbour—the first vessel to do so.

Nov., 1821.—Fall of Mauinaina Pa, Auckland Isthmus, to Hongi.

Nov., 1821.—Ngati-Toa migration from Kawhia to Otaki under Te Rauparaha.

Dec., 1821.—Fall of Te Totara Pa, Thames, to Hongi.

May, 1822.—Fall of Matakitaki Pa, Waikato, to Hongi.

May, 1823.—Fall of Mokoia Pa, Rotorua Lake, to Hongi.

1823, 1828.—Acts passed by the Imperial Parliament extending the jurisdiction of the Courts of justice in New South Wales to all the British subjects in New Zealand.

1824.—Fall of Te Whetumatarau Pa, near East Cape, to Pomare.

1825.—First attempt at colonisation by an expedition under the command of Captain Herd, who bought two islands in the Hauraki Gulf.

Feb., 1825.—Great defeat of Ngati-Whatua at Te Ikaaranganui, Kaipara, by Hongi.

1827.—Destruction of mission-station at Whangaroa by Hongi's forces.

Feb., 1827.—Admiral (then Captain) Dumont D'Urville anchored in Auckland Harbour.

1828.—Hongi died at Whangaroa, from wounds received at Hokianga.

1828.—The "Maquarie," Captain Kent, the first vessel to enter Kawhia.

March, 1829.—Brig "Hawes" captured at Whakatane by Maoris.

1830.—Battle of Taumata-wiwi, near Cambridge.

1830.—Fall of Kaiapohia Pa, Canterbury.

March 6, 1830.—Battle of Kororareka, between two Nga-Puhi tribes.

Dec., 1830.—Death of Tama-i-hara-nui at the hands of Te Rauparaha's people. He was brought from Port Cooper by Captain Steward, brig "Elizabeth."

1831.—Tory Channel whaling-station established.

1831.—Application of thirteen chiefs for the protection of King William the Fourth.

Dec., 1831.—Pukerangiora Pa, Waitara, fell to Waikato.

Feb., 1832.—Repulse of Waikato at Nga-motu Pa, under Dicky Barrett.

1833.—Mr. Busby appointed British Resident, to live at the Bay of Islands.

1834.—Battle of Haowhenua and Pakakutu, near Otaki.

1834.—Bishop Williams's first visit to East Cape.

April 29, 1834.—"Harriet" wrecked at Cape Egmont.

Oct. 1, 1834.—H.M.S. "Alligator" shelled and took Waimate Pa, near Opunake. First occasion of H.M. troops being employed in New Zealand.

1835.—Declaration of independence of the whole of New Zealand as one nation, with the title of "The United Tribes of New Zealand."

Nov. and Dec., 1835.—Ngati-Awa tribes migrated to and conquered the Chatham Islands.

March 28, 1836.—Maketu Pa, Bay of Plenty, fell to Waikato.

May 9, 1836.—Te Tumu Pa, Bay of Plenty, fell to Te Arawa.

Aug. 5, 1836.—Battle at Matai-puku, Rotorua—Waikato beat Te Arawa.

Oct.. 1836.—Siege of Toka-a-kuku, Te Kaha, Bay of Plenty.

1838.—The Roman Catholic Bishop Pompallier, with several priests, arrived at Hokianga.

Sept. 1, 1838.—H.M.S. "Pelorus" discovers Pelorus Sound.

April, 1839.—Taking of the French whaler "Jean Bart" at Chatham Islands by Maoris.

May 12, 1839.—Departure of the preliminary expedition of the New Zealand Company from England.

June, 1839.—Issue of Letters Patent authorising the Governor of New South Wales to include within the limits of that colony any territory that might be acquired in sovereignty by Her Majesty in New Zealand.

Sept. 16, 1839.—First body of New Zealand Company's emigrants sailed from Gravesend.

Sept. 20, 1839.—Arrival in Port Nicholson of the preliminary expedition of the New Zealand Company under Colonel Wakefield.

Oct. 16, 1839.—Battle of Te Kuititanga, Otaki.

Jan. 20, 1840.—First steamer arrived in New Zealand.

Jan. 22, 1840.—Arrival of first body of immigrants at Port Nicholson.

Jan. 29, 1840.—Captain Hobson, R.N., arrived at the Bay of Islands. On the following day (Jan. 30) he hoisted the Union flag, and read the commission, under the Great Seal of the United Kingdom, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the Islands of

New Zealand; also his own commission as Lieutenant-Governor over territory that might be acquired in sovereignty.

Feb. 5, 1840.—Treaty of Waitangi signed.

May 21, 1840.—Date of Proclamations of sovereignty over the Islands of New Zealand.

June 17, 1840.—The Queen's sovereignty over the Middle Island formally proclaimed at Cloudy Bay, by Major Bunbury, H.M. 80th Regiment, and Captain Nias, R.N.

Aug. 11, 1840.—The British flag hoisted at Akaroa by Captain Stanley, R.N., and British authority established. The French frigate "L'Aube" arrived there on the 13th August, and the vessel "Comte de Paris," with fifty-seven immigrants, on the 16th August, in order to establish a French colony.

Sept. 18, 1840.—The British flag hoisted at Auckland. The Lieutenant-Governor's residence established there.

1840.—Formation of Wanganui settlement under the name of "Petre."

Feb. 12, 1841.—Issue of charter of incorporation to the New Zealand Company.

Mar. 31, 1841.—Arrival of first New Plymouth settlers.

May 3, 1841.—New Zealand proclaimed to be independent of New South Wales.

Oct., 1841.—Selection of site for settlement at Nelson.

Feb. 1, 1842.—Settlement founded at Nelson.

May 29, 1842.—Arrival of Bishop Selwyn in the colony.

Sept. 10, 1842.—Death of Governor Hobson. Lieutenant Shortland, R.N., Colonial Secretary, became Acting-Governor until the arrival of Captain Fitzroy.

June, 1843.—Affray with Natives at the Wairau, and massacre by Rangihaeata of Captain Wakefield, R.N., agent at Nelson of the New Zealand Company, and others, who had surrendered.

Dec. 1, 1843.—Arrival of Captain Fitzroy, R.N., as Governor.

July 8, 1844.—The Royal flagstaff at Kororareka cut down by Heke.

March 10, 1845.—Attack on and destruction of Town of Kororareka by Heke.

Oct. 1, 1845.—Receipt of despatch notifying recall of Governor Fitzroy.

Nov. 14, 1845.—Arrival of Captain Grey, as Lieutenant-Governor of the colony, from South Australia.

Jan. 11, 1846.—Capture of pa at Ruapekapeka, Bay of Islands, and termination of Heke's war.

Mar. 3, 1846.—Commencement of Native hostilities in the Hutt Valley, near Wellington.

May 16, 1846.—Attack by Natives on a military outpost in the Hutt Valley.

July 23, 1846.—Capture of Te Rauparaha at Porirua, near Wellington. He was detained for a year as a prisoner on board a ship of war.

Aug. 28, 1846.—The New Zealand Government Act passed by the Imperial Parliament, under which a charter was issued dividing the colony into two provinces, and granting representative institutions.

May 19, 1847.—Attack by Natives on settlement of Wanganui.

Jan. 1, 1848.—Captain Grey sworn in as Governor-in-Chief over the Islands of New Zealand, also as Governor of the Province of New Ulster and Governor of the Province of New Munster.

Jan. 3, 1848.—Major-General Pitt appointed by Governor Grey to be Lieutenant-Governor of the Province of New Ulster.

Jan. 28, 1848.—Assumption by Lieutenant-Governor E. J. Eyre, at Wellington, of the administration of the Government of the Province of New Munster.

Feb. 21, 1848.—Peace ratified at Wanganui.

Mar. 7, 1848.—Suspension by Imperial statute of that part of the New Zealand Government Act which had conferred representative institutions.

Mar., 1848.—Otago founded by a Scotch company under the auspices of the Free Church of Scotland.

Oct., 1848.—Severe earthquake at Wellington.

July 1850.—Surrender of the New Zealand Company's charter, all its interests in the colony reverting to the Imperial Government.

Dec., 1850.—Canterbury founded by the Canterbury Association in connection with the Church of England.

Jan. 8, 1851.—Death of Major-General Pitt, Lieutenant-Governor of the Province of New Ulster.

April 14, 1851.—Lieutenant-Colonel Wynyard appointed Lieutenant-Governor of the Province of New Ulster.

1852.—Discovery of gold at Coromandel by Mr. Charles Ring.

June 30, 1852.—The Constitution Act passed by the Imperial Parliament, granting representative institutions to the colony, and subdividing it into six provinces.

Jan., 1853.—Promulgation of the Constitution Act.

Mar. 7, 1853.—Assumption by Sir George Grey, K.C.B., of the duties of Governor of the colony, in terms of the appointment after the passing of the New Zealand Constitution Act, and cessation of the duties of the Lieutenant-Governors of New Ulster and New Munster.

Dec. 31, 1853.—Departure of Governor Sir George Grey.

Jan. 3, 1854.—Lieutenant-Colonel Wynyard assumed the administration of the Government.

May 27, 1854.—Opening at Auckland of the first session of the General Assembly by Lieutenant-Colonel Wynyard, Administrator of the Government.

Jan., 1855.—Very severe earthquake on each side of Cook Strait.

Sept. 6, 1855.—Arrival of Governor Colonel T. Gore Browne, C.B.

Nov. 12, 1855.—First members elected to House of Representatives under system of Responsible Government.

Aug. 8, 1855.—General Assembly opened.

Sept. 15, 1855.—General Assembly prorogued.

May 7, 1856.—Appointment of the first Ministry under the system of Responsible Government, under Mr. Sewell, Colonial Secretary.

May 14, 1856.—Defeat of Mr. Sewell's Ministry.

May 20, 1856.—Appointment of a Ministry under presidency of Mr. W. Fox, as Attorney-General.

May 28, 1856.—Defeat of Mr. Fox's Ministry, by a majority of one, on a direct vote of want of confidence.

June 2, 1856.—Appointment of a Ministry under the presidency of Mr. E. W. Stafford.

1857.—First payable goldfield in the colony opened at Collingwood, in the Nelson Province.

Aug. 21, 1858.—New Provinces Act passed.

Nov. 1, 1858.—Establishment of the Province of Hawke's Bay.

Dec. 22, 1858.—The Austrian exploring frigate "Novara" arrived in Auckland Harbour. Dr. Ferdinand von Hochstetter, at the request of the New Zealand Government, was commissioned to make geological surveys of the greater part of Auckland and Nelson Provinces.

March, 1859.—Te Teira offered land at Waitara for sale to the Government.

Nov. 1, 1859.—Establishment of the Province of Marlborough.

Mar., 1860.—Commencement of hostilities against Wiremu Kingi te Rangitake at Waitara.

Mar. 18, 1860.—Capture of Maori pa at Waitara.

Mar. 28, 1860.—Engagement at Waireka.

June 27, 1860.—Engagement of Puketakauere at Waitara.

Nov. 6, 1860.—Defeat at Mahoetahi, with heavy loss, of a force of Waikato Natives, who had crossed the Waitara River to join Wiremu Kingi.

Dec. 31, 1860.—Capture of the Matarikoriko Pa, and defeat of a large body of Waikato Natives.

Jan. 23, 1861.—The Natives made a determined attack on the redoubt at Huirangi occupied by Imperial troops, and were repulsed with heavy loss.

April 1, 1861.—Establishment of Province of Southland.

May 21, 1861.—A truce agreed to.

May, 1861.—Discovery of gold at Gabriel's Gully, Otago.

July 5, 1861.—Defeat of Mr. Stafford's Ministry, by a majority of one, on a vote of want of confidence.

July 12, 1861.—Appointment of a Ministry under the premiership of Mr. Fox.

July 29, 1861.—Incorporation of the Bank of New Zealand.

Sept. 26, 1861.—Arrival of Sir George Grey, K.C.B., at Auckland, from the Cape Colony, to succeed Governor Gore Browne. Sir George Grey was sworn in as Governor on the 3rd October.

Oct. 2, 1861.—Departure of Governor Gore Browne.

June 28, 1862.—Coromandel proclaimed a goldfield.

June 29, 1862.—Wreck of s.s. "White Swan" on East Coast (with loss of many public records, in transit from Auckland).

July 28, 1862.—Defeat of Mr. Fox's Ministry by the casting-vote of the Speaker, on a proposed resolution in favour of placing the ordinary conduct of Native affairs under the administration of the Responsible Ministers.

Aug. 6, 1862.—Appointment of a Ministry under the leadership of Mr. Alfred Domett.

Feb. 7, 1863.—Wreck of H.M.S. "Orpheus" on Manukau Bar; 181 lives lost.

Feb. 26, 1863.—Definite relinquishment by the Imperial Government of control over administration of Native affairs.

May 4, 1863.—Treacherous assault near Tataraimaka by Natives on a military escort. Murder of Lieutenant Tragett, Dr. Hope, and five soldiers of the 57th Regiment.

June 4, 1863.—Defeat of Natives at Katikara, by a force under Lieut.-General Cameron.

July 17, 1863.—Action at Koheroa, in the Auckland Province. Commencement of the Waikato War.

Oct. 27, 1863.—Resignation of the Domett Ministry, in consequence of difficulties experienced in connection with arrangements for finding a fitting representative of the Government in the Legislative Council.

Oct. 30, 1863.—Appointment of the Ministry formed by Mr. Fox, under the premiership of Mr. F. Whitaker.

Nov., 1863.—Acceptance by the General Assembly of colonial responsibility in Native affairs.

Nov. 20, 1863.—Battle of Rangiriri. Defeat of Natives and unconditional surrender of 183.

Dec. 1, 1863.—The first railway in New Zealand opened for traffic by W. S. Moorhouse, Superintendent of Canterbury. The line was from Christchurch to Ferrymead Junction.

Dec. 3, 1863.—The New Zealand Settlements Act passed, giving the Governor power to confiscate the lands of insurgent Natives.

Dec. 8, 1863.—Occupation of Ngaruawahia. The British flag hoisted on the Maori king's flagstaff.

Feb. 11, 1864.—Engagement with Natives on Mangapiko River. Major (then Captain) Heaphy, of the New Zealand Forces, won the Victoria Cross for distinguished bravery on this occasion.

Feb. 22, 1864.—Defeat of Natives at Rangiaohia.

April 2, 1864.—Attack on and capture of pa at Orakau, Waikato.

April 21, 1864.—Engagement near Maketu, Bay of Plenty. Tribes of the Rawhiti defeated by Arawa Natives, under Captain McDonnell.

April 29, 1864.—Assault on Gate Pa, Tauranga, Bay of Plenty, and repulse of large British force by the Maoris. The pa was abandoned by the Natives during the following night.

April 30, 1864.—Repulse of attack by rebel Hauhau Natives on redoubt at Sentry Hill, Taranaki.

May 14, 1864.—Battle of Moutoa, an island in the Wanganui River, between friendly and rebel Hauhau Natives. Complete defeat of rebels.

June 21, 1864.—Engagement at Te Ranga, near Tauranga, by Lieut.-Colonel Greer, 68th Regiment. Severe defeat of the Natives.

1864.—Discovery of gold on the west coast of the Middle Island.

Sept. 10, 1864.—Escape of Maori prisoners from Kawau.

Oct. 3, 1864.—Wellington chosen as the seat of Government.

Nov. 24, 1864.—Appointment of a Ministry under the premiership of Mr. F. A. Weld, the Whitaker-Fox Ministry having resigned during the recess.

Dec. 17, 1864.—Confiscation of Native lands in Waikato by Sir George Grey.

Feb., 1865.—Removal of the seat of Government to Wellington.

March 2, 1865.—Barbarous murder of the Rev. Mr. Volkner, a Church of England missionary, at Opotiki, by Hauhau fanatics, under Kereopa.

June 8, 1865.—Submission of the Maori Chief Wiremu Tamihana te Waharoa (William Thompson).

June 17, 1865.—Murder of Mr. Fulloon, a Government officer, and his companions, at Whakatane, by Hauhau fanatics.

July 22, 1865.—Capture of the Wereroa Pa, near Wanganui.

Aug. 2, 1865.—Assault and capture of the Pa Kairomiromi, at Waiapu, by Colonial Forces under Captain Fraser, and Native Contingent under the chief Te Mokena. Eighty-seven rebels killed.

Sept. 2, 1865.—Proclamation of peace issued by Governor Sir George Grey, announcing that the war, which commenced at Oakura, was at an end.

Sept. 30, 1865.—Murder by Hauhaus, at Kakaramea, of Mr. Broughton, when sent as friendly messenger to them by Brigadier-General Waddy.

Oct. 12, 1865.—Resignation of Mr. Weld's Ministry, on account of a resolution adverse to the Government policy, having been defeated only by the casting-vote of the Speaker.

Oct. 16, 1865.—Appointment of a Ministry under the premiership of Mr. E. W. Stafford.

Dec. 25, 1865.—Defeat of rebel Natives at Wairoa, Hawke's Bay, by Colonial Forces and Native Contingent.

Jan. 4, 1866.—Defeat of Natives at Okotuku Pa, on the west coast of the North Island, by force under Major-General Chute.

Jan. 7, 1866.—Assault on and capture of Putahi Pa, by force under Major-General Chute.

Jan. 13, 1866.—Assault on and capture of Otapawa Pa, by force under Major-General Chute.

Jan. 17, 1866, to Jan. 25, 1866.—Period of Major-General Chute's march through the bush to New Plymouth.

Jan., 1866.—Escape of a large number of Native prisoners from the hulk at Wellington; many were drowned in trying to swim ashore.

March 29, 1866.—Submission of the rebel chiefs Te Heuheu and Herekiekie, of Taupo district.

Mar., 1866.—A detachment of Maori prisoners sent to the Chatham Islands.

June 15, 1866.—Commencement of Panama steam mail-service.

Aug. 26, 1866.—The Cook Strait submarine telegraph cable laid.

Oct. 2, 1866.—Engagement with rebel Natives at Pungarehu, West Coast, by Colonial Forces, under Major McDonnell.

Oct. 8, 1866.—First Act passed to impose stamp duties.

Oct. 12, 1866.—Defeats of rebel Natives at Omaranui and at Petane, Hawke's Bay, by Colonial Forces.

Oct. 10, 1867.—An Act passed to establish an institute for the promotion of science and art in the colony.

Oct. 10, 1867.—An Act passed for the division of the colony into four Maori electorates, and the admission of four Maori members to the House of Representatives.

Jan., 1868.—Establishment of the County of Westland.

Feb. 5, 1868.—Arrival of Governor Sir George F. Bowen, G.C.M.G.

July 4, 1868.—Seizure by Maori prisoners, under the leadership of Te Kooti, of the schooner "Rifleman," and their escape from the Chatham Islands.

July 12, 1868.—Night attack by Natives on redoubt at Turuturu Mokai. Sub-Inspector Ross and seven Europeans killed. Natives driven off by the arrival of a force under Major Von Tempsky.

Aug. 8, 1868.—Pursuit by Lieut.-Colonel Whitmore of escaped Chatham Island prisoners, and indecisive engagement in the gorge of the Ruake Ture.

Aug. 21, 1868.—Attack on Ngutu-o-te-Manu by force under Lieut.-Colonel McDonnell. Defeat of Natives; four Europeans killed and eight wounded.

Sept. 7, 1868.—Engagement in bush at Ngutu-o-te-Manu. Major Von Tempsky, Captains Buck and Palmer, Lieutenants Hunter and Hastings, and fourteen men killed.

Oct. 19, 1868.—Bishop Selwyn left New Zealand.

Nov. 7, 1868.—Attack on Moturoa. Repulse of Colonial Forces, with severe loss.

Nov. 10, 1868.—Massacre of thirty-two Europeans at Poverty Bay by Te Kooti's band of Natives, who had escaped from the Chatham Islands.

Nov. 24, 1868, Dec. 3, 1868, Dec. 5, 1868.—Engagements between friendly Natives and rebels under Te Kooti, at Patutahi, Poverty Bay district.

Jan. 5, 1869.—Assault on and capture of Ngatapa Pa, Poverty Bay district, after a siege of six days, by the Colonial Forces of Europeans and friendly Natives under Colonel Whitmore and Major Ropata. Dispersion and pursuit of Te Kooti's band. More than 136 rebel Natives were killed.

Feb. 13, 1869.—Treacherous murder of the Rev. John Whitely and seven other Europeans at the White Cliffs, Taranaki.

Feb. 18, 1869.—Attack by rebel Natives on a foraging-party at Karaka Flat; one sergeant and six men killed.

Mar. 3, 1869.—Termination of Panama mail-service.

Mar. 13, 1869.—Attack on and defeat of Titokowaru's force at Otauto.

April 10, 1869.—Native pa at Mohaka taken by Te Kooti, who killed forty friendly Natives and several Europeans in the neighbourhood.

April 12, 1869.—First arrival of H.R.H. the Duke of Edinburgh in Wellington, in H.M.S. "Galatea."

May 6, 1869.—Surprise and capture of Ahikereru and Oamaru Teangi Pas, Waiwera country. Defeat of Te Kooti.

June 13, 1869.—Surrender to Major Noake and Mr. Booth, R.M., of the chief Tairua, with 122 men, women, and children of the Pakakohe Tribe, near Wanganui.

June 24, 1869.—Defeat of Mr. Stafford's Ministry on a want-of-confidence motion.

June 28, 1869.—Appointment of a Ministry under the premiership of Mr. W. Fox.

Sept. 3, 1869.—An Act passed providing Government life insurance and annuities.

Oct., 1869.—Seventy-four prisoners from the bands of Te Kooti and Titokowaru sentenced to death, after trial, for treason. The sentences of seventy-three were commuted to penal servitude for various terms.

Oct. 4, 1869.—Pourere Pa stormed and taken by Lieut.-Colonel McDonnell, with a mixed force of Europeans and Natives.

Jan., 1870.—Three hundred friendly Natives under Topia, and three hundred under Major Keepa (known as Kemp), started up the Wanganui River in pursuit of Te Kooti, who retreated into the Urewera country.

Jan. 25, 1870.—Capture of Tapapa Pa, occupied by Te Kooti.

Feb. 24, 1870.—The last detachment of the Imperial troops left the colony.

Mar. 25, 1870.—Major Keepa, with Native force, captured the position held by Te Kooti at Maraetahi, in Urewera country; nineteen rebels killed and seventy-three of Te Kooti's men taken prisoners. Te Kooti escaped with twenty followers.

Mar. 26, 1870.—Commencement of San Francisco mail-service.

June 28, 1870.—Enunciation in the House of Representatives of the public-works policy by the Colonial Treasurer, Mr. Vogel.

July, 1870.—Thirty prisoners of Te Kooti's band sentenced to death. The sentences were commuted to penal servitude.

Aug. 27, 1870.—Arrival in Wellington of H.R.H. the Duke of Edinburgh in H.M.S. "Galatea." Second visit.

Sept. 12, 1870.—An Act passed to establish the New Zealand University.

Sep. 12, 1870.—The Land Transfer Act passed, to simplify the title to land and dealings with real estates.

Oct. 6, 1870.—Southland Province reunited with Otago.

Dec. 5, 1870.—Honiani te Puni, the chief of the Ngatiawas, a staunch friend of the Europeans, died at Petone, near Wellington, aged ninety years.

Mar., 1871.—Commencement of railway-construction under the public-works policy.

Aug. 4, 1871.—Death of Tamati Waka Nene, the great Ngapuhi chief and friend of the Europeans.

Nov., 1871.—Capture of the notorious rebel Kereopa, the murderer of the Rev. Mr. Volkner, by the Ngatiporous.

Jan. 5, 1872.—Execution of Kereopa at Napier.

Jan., 1872.—Remission of sentences on fifty-eight Native prisoners then undergoing imprisonment for rebellion.

Feb. 22, 1872.—Visit of William King, the Maori chief of Waitara, to New Plymouth, and resumption of amicable relations with the Europeans.

May 9, 1872.—A general thanksgiving-day for the recovery of H.R.H. the Prince of Wales.

Sept. 6, 1872.—Defeat and resignation of Mr. Fox's Ministry.

Sept. 10, 1872.—Appointment of a Ministry under the premiership of the Hon. E. W. Stafford.

Oct. 4, 1872.—Defeat of the Stafford Ministry on a vote of want of confidence moved by Mr. Vogel.

Oct. 11, 1872.—Appointment of a Ministry under the premiership of the Hon. G. M. Waterhouse, M.L.C.

Oct. 11, 1872.—First appointment of Maori chiefs (two) to be members of the Legislative Council.

Oct. 25, 1872.—The Public Trust Office Act passed.

Jan., 1873.—Establishment of the New Zealand Shipping Company.

Mar. 3, 1873.—The Hon. W. Fox appointed Premier on the resignation of that office by the Hon. G. M. Waterhouse, the other members of the Ministry being confirmed in their offices.

Mar. 19, 1873.—Departure of Governor Sir G. F. Bowen, G.C.M.G.

Mar. 21, 1873.—Assumption of the Government by Sir G. A. Arney, Chief Justice, as Administrator.

April 8, 1873.—Resignation of the premiership by the Hon. W. Fox, on the return of the Hon. J. Vogel, C.M.G., from Australia. Appointment of Mr. Vogel as Premier, the other Ministers being confirmed in their offices.

June 14, 1873.—Arrival of Governor Sir J. Fergusson, P.C.

Aug. 22, 1874.—The Imprisonment for Debt Abolition Act passed.

Nov. 27, 1874.—Sir James Fergusson left New Zealand.

Dec. 3, 1874.—Arrival of Governor the Marquis of Normanby, P.C.

1874.—31,774 immigrants were introduced this year under the immigration and public-works policy.

Jan. 3, 1875.—Visit of Sir Donald McLean to the Maori king; resumption of amicable relations.

July 6, 1875.—Resignation of the Ministry, in consequence of the absence of Sir J. Vogel, K.C.M.G., in England, and his being unable to attend the session of Parliament. Reconstitution thereof, under the premiership of the Hon. Dr. Pollen, M.L.C.

July, 1875.—Establishment of the Union Steam Shipping Company of New Zealand.

1875.—18,324 immigrants were introduced this year under the immigration and public-works policy.

Oct. 12, 1875.—The Abolition of Provinces Act passed.

Feb. 15, 1876.—Resignation of the Hon. Dr. Pollen's Ministry, and reconstitution under the premiership of Sir J. Vogel, K.C.M.G.

Feb. 18, 1876.—Completion of the work of laying the telegraph cable between New Zealand and New South Wales.

June, 1876.—Death of Dr. Isaac Earl Featherston, while acting as Agent-General for the colony in England. He was the first to hold that office, and had previously been Superintendent of the Province of Wellington from the time of the first establishment of provincial representative institutions.

Sept. 1, 1876.—Resignation of Sir J. Vogel's Ministry in view of the appointment of Sir J. Vogel as Agent-General. Formation of a Ministry under the premiership of Major Atkinson.

Sept. 13, 1876.—Resignation of Major Atkinson's Ministry in consequence of doubts being entertained as to the constitutional position thereof. Reconstruction of the Ministry under the premiership of Major Atkinson.

Nov. 1, 1876.—"The Abolition of Provinces Act, 1875," came into full operation. Complete abolition of provincial institutions. The colony subdivided into counties and municipal boroughs.

Oct. 8, 1877.—Defeat of the Atkinson Ministry on a vote of want of confidence moved by Mr. Larnach.

Oct. 15, 1877.—Appointment of a Ministry under the premiership of Sir George Grey, K.C.B.

Nov. 29, 1877.—The Education Act, providing for the free and compulsory education of children, passed.

April 11, 1878.—Bishop Selwyn died, in England.

Oct. 29, 1878.—Sir George Grey's first land-tax passed.

Feb. 29, 1879.—Departure of Governor the Marquis of Normanby, P.C.

Mar., 1879.—Removal of surveyors from the Waimate Plains by Natives acting under Te Whiti's orders.

Mar. 27, 1879.—Arrival of Governor Sir Hercules G. R. Robinson, G.C.M.G.

May 25, 1879.—The Natives from Parihaka, by order of Te Whiti, began ploughing up lands occupied by Europeans.

June, 1879.—Arrest and imprisonment of 180 of these Natives for causing disturbances.

July 29, 1879.—Defeat of the Grey Ministry on an amendment to the Address in Reply, moved by Sir William Fox, followed by a dissolution of Parliament.

Oct. 3, 1879.—Defeat and subsequent resignation of Sir George Grey's Ministry.

Oct. 8, 1879.—Appointment of a Ministry under the premiership of the Hon. John Hall.

Dec. 19, 1879.—An Act passed to assess property for the purpose of taxation.

Dec. 19, 1879.—The Triennial Parliament Act passed.

Dec. 19, 1879.—An Act passed to qualify every resident male of twenty-one years of age and upwards to vote.

June, 1880.—First portion of the Parihaka Maori prisoners released by the Government.

July 9, 1880.—Bounty Island taken possession of by Captain George Palmer, H.M.S. "Rosario."

Sept. 8, 1880.—Departure of Governor Sir Hercules G. R. Robinson, G.C.M.G.

Oct. 1880.—Release of the last portion of the Parihaka Maori prisoners.

Oct. 26, 1880.—Sir Francis Dillon Bell appointed Agent-General.

Nov. 29, 1880.—Arrival of Governor Sir A. H. Gordon, G.C.M.G.

April 29, 1881.—"Tararua," steamer, wrecked; 130 lives lost.

June 26, 1881.—Severe earthquakes in Wellington.

Nov. 5, 1881.—March of force of Constabulary and Volunteers on Parihaka, and arrest of Te Whiti and Tohu, without bloodshed.

Feb. 15, 1882.—First shipment of frozen meat made from Port Chalmers. See Year-book, 1893, p. 192.)

April 21, 1882.—Resignation (during the recess) of the Hon. J. Hall's Ministry, and its reconstruction under the premiership of the Hon. F. Whitaker, M.L.C.

June 23, 1882.—Departure of Governor Sir A. H. Gordon.

June 24, 1882.—Assumption of the Government by Sir J. Prendergast, Chief Justice.

Jan. 20, 1883.—Arrival of Governor Sir W. F. D. Jervois, G.C.M.G., C.B.

Jan. 26, 1883.—A direct line of steam-communication between England and New Zealand inaugurated by the New Zealand Shipping Company.

Feb. 13, 1883.—Proclamation of amnesty to Maori political offenders.

Feb. 19, 1883.—Liberation of Te Whiti and Tohu.

Sept. 25, 1883.—Resignation of the office of Premier and his seat in the Ministry by the Hon. F. Whitaker, and the appointment of the Hon. Major H. A. Atkinson to be Premier, the members of Mr. Whitaker's Ministry being confirmed in their offices.

June 11, 1884.—Defeat of Major Atkinson's Government.

June 27, 1884.—Dissolution of the General Assembly.

Aug. 16, 1884.—Resignation of Major Atkinson's Ministry in consequence of the result of the general election. Formation of a Ministry under the premiership of Mr. Robert Stout.

Aug. 20, 1884.—Defeat of Mr. Stout's Ministry by an amendment, expressive of want of confidence, to the Address in Reply being carried.

Aug. 28, 1884.—Appointment of a Ministry under the premiership of Major Atkinson.

Aug. 29, 1884.—Defeat of Major Atkinson's Ministry on a vote of want of confidence.

Sept. 3, 1884.—Appointment of a Ministry under the premiership of Mr. Robert Stout.

Nov. 8, 1884.—An Act passed to enable certain loans of the New Zealand Government to be converted into inscribed stock and the accrued sinking funds released.

Aug. 1, 1885.—The New Zealand Industrial Exhibition opened at Wellington.

June 10, 1886.—Volcanic eruptions at Tarawera, and destruction of the famed Pink and White Terraces; 101 lives lost.

May 28, 1887.—Defeat of Sir Robert Stout's Ministry.

July 15, 1887.—Dissolution of the General Assembly, after prorogation, on the 10th June.

July 21, 1887.—A Proclamation issued declaring the Kermadec Islands to be annexed to and form part of the Colony of New Zealand.

Aug. 17, 1887.—Kermadec Group annexed to New Zealand. Flag hoisted and proclamation read at Sunday Island.

Oct. 8, 1887.—Appointment of a Ministry under the premiership of Major H. A. Atkinson, Sir Robert Stout's Ministry having resigned in consequence of the result of the election.

Dec. 19, 1887.—An Act passed to reduce the number of members of the House of Representatives, after the expiration of the General Assembly then sitting, to seventy-four, including four Maori representatives.

Dec. 23, 1887.—The Australian Naval Defence Act, being an Act to provide for the establishment of an additional naval force on the Australian station, at the joint charge of the Imperial and the several Colonial Governments, was passed by the New Zealand Legislature.

Oct. 27, 1888.—Formal Proclamation of British Protectorate of Cook group of islands, by Captain Bourke, R.N., of H.M.S. "Hyacinth."

Mar. 22, 1889.—Departure of Governor Sir W. F. D. Jervois, G.C.M.G., C.B., from the colony.

Mar. 23, 1889.—Assumption of the Government by Sir James Prendergast.

May 2, 1889.—Arrival of the Earl of Onslow, G.C.M.G.

Sept. 2, 1889.—Electors prohibited by statute from voting in respect of more than one electorate at any election for the House of Representatives.

Nov. 26, 1889.—Opening of South Seas Exhibition, Dunedin.

Dec. 5, 1890.—First election of members of the House of Representatives under a practical manhood suffrage, and on the one-man-one-vote principle.

Jan. 24, 1891.—Notification by Governor of acceptation of resignation (during the recess) of the Hon. Sir H. A. Atkinson's Ministry. Appointment of a Ministry under the premiership of the Hon. John Ballance.

April 22, 1891.—Proclamation by Governor of New Zealand to inhabitants at Rarotonga of appointment of British Resident for the Protectorate of the Cook Islands.

May 25, 1891.—Adhesion of Australia to Postal Union.

Aug. 19, 1891.—Labour-laws: Passing of Employers' Liability Act 1882 Amendment Act

Aug. 29, 1891.—Labour-laws: Passing of Truck Act, to prohibit payment of wages in goods or otherwise than in money.

Sept. 8, 1891.—Passing of Land and Income Assessment Act for purposes of taxation, and repeal of property-tax.

Sept. 21, 1891.—Labour-laws: Passing of an Act for supervising and regulating of factories and workrooms. [Repealed by Act of 1894.]

Jan. 19, 1892.—Electoral districts of the colony based on population as ascertained by the results of the census of 1891 proclaimed.

Feb. 2, 1892.—Departure of Governor the Earl of Onslow.

Feb. 25, 1892.—Assumption of the Government by Sir James Prendergast, Chief Justice.

June 7, 1892.—Arrival of Governor the Earl of Glasgow, G.C.M.G.

June 28, 1892.—Death of Sir H. A. Atkinson, K.C.M.G., Speaker of the Legislative Council, and previously four times Premier.

Oct. 1, 1892.—Labour-laws: Passing of Contractors' and Workmen's Lien Act.

October 8, 1892.—Passing of Dairy Industry Act. [Repealed by Act of 1894.]

Oct. 11, 1892.—Passing of first Land-tax and Income-tax Act on the basis of the Assessment Act of previous year.

Oct. 11, 1892.—"Land Act, 1892": Lease in Perpetuity without revaluation system introduced: occupation with right of purchase: optional method of selection: small farms associations.

Oct. 8, 1892.—"Land for Settlements Act, 1892," authorising purchase of lands from individuals for purposes of subdivision. [Repealed by Act of 1894. See *post.*]

April 19, 1893.—Cheviot Estate taken over by Government under the Land and Income Assessment Act.

April 27, 1893.—Death of Hon. John Ballance, Premier of New Zealand.

May 1, 1893.—Resignation of the Ministry in consequence of the death of the Hon. John Ballance, and appointment of a new Ministry under the premiership of the Hon. R. J. Seddon.

June 23, 1893.—Death of Sir William Fox, K.C.M.G.; four times Premier of New Zealand.

Sept. 2, 1893.—Passing of Bank-note Issue Act, to make bank-notes a first charge on assets and to enable the Government to declare them to be a legal tender, &c.

Sept. 8, 1893.—The Legislative Council of New Zealand passed, by a majority of two, the Bill conferring the franchise on women.

Sept. 14, 1893.—Banks and Bankers Act Amendment Act passed, to permit of increase of capital by issue of new shares.

Sept. 19, 1893.—"The Electoral Act, 1893," extending franchise to women.

Oct. 2, 1893.—Alcoholic Liquors Sale Control Act passed: New licenses to be granted subject to the votes of the electors: reduction or abolition of licenses if desired.

Oct. 6, 1893.—Passing of "Criminal Code Act, 1893."

Oct. 6, 1893.—Labour-laws: Passing of "Workmen's Wages Act, 1893."

Oct. 6, 1893.—Native Land Purchase and Acquisition Act.

Oct. 20, 1893.—Sir James Prendergast appointed temporarily Deputy of the Governor.

Nov. 28, 1893.—A general election took place, being the first occasion on which women exercised the franchise.

Dec. 28, 1893.—Death of Right Rev. Dr. Henry John Chitty Harper, formerly Bishop of Christchurch and Primate of New Zealand.

Mar. 19, 1894.—Sir James Prendergast appointed temporarily Deputy of the Governor.

June 30, 1894.—Passing of Act to extend operation of Bank-note Issue Act, and another Act to control the transfer of bank shares.

June 30, 1894.—"Bank of New Zealand Share Guarantee Act, 1894," to guarantee special issue of shares to amount of £2,000,000, and purchase of Assets Estates Company by Assets Board. [Amended on July 20.]

July 20, 1894.—Passing of an Act to limit number of bank directors and power of shareholders to transfer their shares.

Aug. 21, 1894.—Labour-laws: Passing of Conspiracy Law Amendment.

Aug. 31, 1894.—Labour-laws: Passing of an Act to encourage the formation of industrial unions and associations, and to facilitate the settlement of industrial disputes by conciliation and arbitration.

Oct. 18, 1894.—"New Zealand Consols Act, 1894."

Oct. 18, 1894.—"Government Advances to Settlers Act, 1894," for relief of settlers burdened by high charges of interest, &c.

Oct. 18, 1894.—Passing of "Land for Settlements Act, 1894," authorising acquisition of private lands for purposes of settlement, with compulsory powers, and repealing Act of 1892; also "Lands Improvement and Native Lands Acquisition Act, 1894."

Oct. 18, 1894.—Labour-laws: Passing of "Shops and Shop-assistants Act, 1894," for limiting hours of business in shops.

Oct. 23, 1894.—Passing of "Banking Act, 1894."

Oct. 23, 1894.—Dairy Industry Act, to regulate manufacture of butter and cheese, with inspection and grading for export, and provide for purity of milk.

Oct. 28, 1894.—Wreck of s.s. "Wairarapa" at Great Barrier Island; 135 lives lost.

Mar. 29, 1895.—Death of Right Reverend Andrew Burn Suter, D.D., formerly Bishop of Nelson, and Primate of New Zealand.

May 27, 1895.—Government assumed management of the Midland Railway.

Aug. 3, 1895.—Death of C. W. Richmond, Puisne Judge of Wellington.

Aug. 20, 1895.—Trustees cemeteries authorised to provide for cremation of dead.

Sept. 4, 1895.—"Bank of New Zealand and Banking Act, 1895," providing for writing off paid-up capital with proceeds of first call on reserve liability. Also for new capital and Assets Realisation Board, &c. Also to purchase business of any other bank.

Sept. 20, 1895.—Labour-laws: Passing of an Act to regulate attachment of wages.

Sept. 20, 1895.—Labour-laws: Passing of Servants' Registry Office Act.

Sept. 20, 1895.—"Family Homes Protection Act, 1895," to secure homes for the people and to prevent them from mortgage or sale for debt.

Oct. 18, 1895.—Amended tariff passed.

Oct. 31, 1895.—Bank of New Zealand and Banking Act Amendment Act: Sale of Colonial Bank business to Bank of New Zealand.

Dec. 20, 1895.—Appointment of Sir P. A. Buckley, K.C.M.G., as a Judge of Supreme Court.

Jan. 10, 1896.—Hon. W. P. Reeves appointed Agent-General in London.

Mar. 26, 1896.—Brunner Mine explosion; sixty-seven deaths.

April 12, 1896.—General census of colony taken for Sunday night.

May 18, 1896.—Death of Sir Patrick Buckley, K.C.M.G.

July 11, 1896.—Appointment of Mr. W. B. Edwards as a Judge of the Supreme Court.

July 19, 1896.—Death of Hon. Robert Pharazyn, M.L.C.

Aug. 2, 1896.—Death of James Edward FitzGerald, C.M.G., Controller and Auditor General.

Oct. 16, 1896.—Land for Settlements Act amended: Special provision made for disposal of highly improved lands acquired: preference given to landless people: Boards may select applicants, &c.

Oct. 17, 1896.—Alteration of franchise by abolition of non-residential or property qualification.

Oct. 17, 1896.—Government Valuation of Land Act passed.

Dec. 4, 1896.—General election of members of House of Representatives for the new districts as fixed by the Representation Commissioners on basis of Census, 1896.

Feb. 6, 1897.—Departure of the Earl of Glasgow, G.C.M.G.

Feb. 8, 1897.—Sir James Prendergast Administrator of Government.

June 22, 1897.—Diamond Jubilee of reign of Her Majesty Queen Victoria. Hon. R. J. Seddon, Premier of New Zealand, called to Privy Council, on occasion of his visit to England with contingent New Zealand Forces.

July 29, 1897.—Wreck of s.s. "Tasmania" at Mahia Peninsula ten lives lost.

Aug. 10, 1897.—The Earl of Ranfurly assumed office as Governor.

Dec. 22, 1897.—Act to establish at Wellington the Victoria College, in connection with the New Zealand University.

July 15, 1898.—Hon. Sir Francis Dillon Bell, K.C.M.G., C.B., died.

1898.—Death of Sir George Grey, K.C.B.

1898.—Death of Bishop Selwyn, of Melanesia.

Oct. 15, 1898.—The Municipal Franchise Reform Act passed.

1898.—The Divorce Bill passed both Houses. Her Majesty's assent thereto gazetted 13th April, 1899.

Nov. 1, 1898.—An Act to provide for Old-age Pensions passed.

Feb. 10, 1899.—Rev. William Colenso died at Napier.

March 13, 1899.—Sir Julius Vogel, K.C.M.G., died.

April, 1899.—Victoria University College opened in Wellington.

May 25, 1899.—Resignation of Sir James Prendergast, Chief Justice.

June 1, 1899.—"The Divorce Act, 1898" (assented to by Her Majesty the Queen), came into operation.

June 22, 1899.—Sir Robert Stout, K.C.M.G., appointed Chief Justice.

Oct. 19, 1899.—Act passed constituting Labour Day. The second Wednesday in the month of October in each year to be a public holiday.

Oct. 21, 1899.—N.Z. Contingent (the first) consisting of 215 officers and men, left in s.s. "Waiwera" for Algoa Bay to assist the British in the Transvaal war.

Nov. 16, 1899.—General Assembly dissolved.

Dec. 6, 1899.—General Election of Members of House of Representatives.

Jan. 21, 1900.—The Second N.Z. Contingent (258 officers and men) left for South Africa in s.s. "Waiwera."

Feb. 5, 1900.—Hon. Thomas Dick died.

Feb. 17, 1900.—The Third N.Z. Contingent (264 officers and men) left for South Africa in s.s. "Knight Templar."

March 24 and 31, 1900.—The Fourth and Fifth Contingents (1,060 officers and men) left for South Africa in s.s.'s "Monowai," "Gymeric," "Waimate," and "Maori."

June 28, 1900.—"Bubonic Plague Prevention Act, 1900," passed.

Aug. 8, 1900.—"Immigration Restriction Act, 1899," assented to by Her Majesty in Council, came into operation.

Oct. 13, 1900.—Public Health Act passed.

Oct. 18, 1900.—The Maori Councils Act passed.

Oct. 20, 1900.—"The Representation Act, 1900," passed, increasing number of European representatives to seventy-six.

Dec. 29, 1900.—Hon. Sir James Prendergast, Kt., appointed Deputy-Governor.

Jan. 1, 1901.—Universal penny postage adopted by New Zealand.

Jan. 22, 1901.—Queen Victoria died.

Jan. 28, 1901.—Accession of King Edward VII. proclaimed in New Zealand.

Jan. 30, 1901.—Sixth N.Z. Contingent (578 officers and men) sailed for South Africa in s.s. "Cornwall."

Feb. 21, 1901.—Appointment of Mr. Theo. Cooper as a Judge of the Supreme Court.

March 31, 1901.—General census of the Colony taken for Sunday night.

April 6, 1901.—Seventh N.Z. Contingent (600 officers and men, roughriders) sailed for South Africa, per s.s. "Gulf of Taranto."

May 22, 1901.—Deceased Husband's Brother Marriage Act came into operation after Royal assent.

June 10, 1901.—Duke and Duchess of Cornwall and York arrived in New Zealand.

June 10, 1901.—Boundaries of Colony extended to include Cook and other Pacific Islands.

Aug. 6, 1901.—Sir John McKenzie, K.C.M.G., died.

Nov. 7, 1901.—State Coal-mines Act passed.

Feb. 1, 1902.—North Island division of the Eighth N.Z. Contingent sailed from Auckland for South Africa per s.s. "Surrey."

Feb. 8, 1902. - South Island division of the Eighth Contingent sailed from Lyttelton per s.s. "Cornwall."

March 12, 1902. South Island division of the Ninth N.Z. Contingent sailed from Port Chalmers for South Africa per s.s. "Kent."

March 19, 1902. North Island division of the Ninth Contingent sailed from Auckland per s.s. "Devon."

April 14, 1902.—North Island division of the Tenth N.Z. Contingent sailed from Auckland for South Africa per s.s. "Drayton Grange."

April 14, 1902 - Right Hon. R. J. Seddon sailed for London to attend Conference of Colonial Premiers, and to represent New Zealand at His Majesty the King's Coronation.

April 19, 1902.—South Island division of the Tenth Contingent sailed for South Africa per s.s. "Norfolk."

June 26, 1902.—Death of Most Rev. Bishop William Garden Cowie, Primate of New Zealand.

Aug. 9, 1902.—Celebration in New Zealand on the occasion of the Coronation of His Majesty King Edward VII.

Aug. 1902.—Return of N.Z. troopers from South Africa (Eighth Contingent left Durban 5th July; Ninth, 9th July; Tenth, 15th July).

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By Authority: JOHN MACKAY, Government Printer, Wellington.—1902.

STATISTICAL SUMMARY OF THE COLONY OF NEW ZEALAND FOR THE YEARS 1840 TO 1852 (INCLUSIVE).

Year.	Population of European Descent (excluding the Military and their Families.)*	Trade.		Revenue and Expenditure.						
		Imports.	Exports.	Revenue from Customs.	Revenue from Land Sales and Crown Lands.	Revenue from Post Office, Fees, Fines, Licenses, and other Incidental Sources.	Total Revenue from Previous Sources.	Parliamentary Grant, or Receipts in aid of Revenue.	Appropriations from the Commissariat Chest for Military and Naval Expenditure.†	Total Expenditure.
	Persons.	£	£	£	£	£	£	£	£	£
1840	2,050	..	..	926	..	..	926	..	..	926
1841	5,000	85,062	10,836	6,407	28,540	2,443	37,390	43,347	804	81,542
1842	10,992	166,783	18,670	18,568	11,723	2,298	32,589	17,494	1,426	51,509
1843	11,848	191,207	53,945	16,241	1,613	3,544	21,398	9,562	8,093	39,053
1844	12,447	111,619	49,647	11,099	405	2,445	13,949	30,815‡	9,782	54,546
1845	12,774	116,980	76,911	8,899	155	3,845	12,899	..	200,000	212,899
1846	13,274	155,478	82,656	21,319	615	4,711	26,645	35,673‡	190,000	252,318
1847	14,477	202,355	45,485	36,472	833	5,958	43,263	37,752	153,038	234,055
1848	17,166	233,844	44,215	38,366	3,337	5,779	47,482	36,000	155,653	239,135
1849	19,543	254,679	133,662	41,931	3,600	4,877	50,408	20,000	151,455	221,863
1850	22,108	..	..	43,612	8,559	7,127	52,298	41,730	131,100	232,128
1851	26,707	..	..	49,208	12,261	5,580	67,049	20,000	110,600	197,649
1852	27,633	..	..	50,527	14,281	10,956	75,764	10,000	91,600	177,364

* The Maori population was estimated at 56,400 persons in the year 1853.

† The data are drawn from several official sources, and the information is only approximate.

‡ Raised by debentures at different issues.

The following are particulars respecting the European population, their cultivations, and live stock for the year 1851 :—

Religious Denominations.—Church of England, 14,179 persons; Presbyterians, 4,124; Wesleyans, 2,529; Primitive Methodists, 226; Independents, 333; Baptists, 400; Unitarians, 74; Lutherans, 186; Quakers, 8; Protestants not specifically defined, 614; Roman Catholics, 3,473; Jews, 65; refused to state, 496.

Education.—Could not read, 7,818 persons; read only, 4,353; read and write, 14,536.

Land to Cultivation.—Acres—in wheat, 5,514; barley, 1,329; oats, 2,324; maize, 259; potatoes, 2,256; grass, 15,589; gardens or orchard, 1,188; other crops, 679; total under crop, 29,140. Acres fenced, 40,625.

Live Stock.—Horses, 2,890; mules and asses, 60; cattle, 34,787; sheep, 233,043; goats, 12,121; pigs, 16,214.

STATISTICAL SUMMARY OF THE COLONY OF NEW ZEALAND FROM 1853 TO 1901 INCLUSIVE.

(For Summary, Years 1840 to 1852, see separate sheet.)

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